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ABSTRACT

The theme for the spring/summer 2002 issue of "The Ledger" is "Warp Speed: How Life Has Changed since 1980." The issue provides an overview of economic and technological changes and focuses on: how people work; the way people handle their money; the way people learn; the cars people drive; how people spend their spare time; and the health care people receive. It contains ten sections: (1) "Statistics--Just the Facts: 1980 and 1990"; (2) "The Economy: Two (Pleasant) Economic Surprises"; (3) "Exercises"; (4) "Technology: Technology Trifecta"; (5) "The Workplace: On the Job"; (6) "Health Care: In Sickness and in Health"; (7) "The Automobile: Behind the Wheel"; (8) "Leisure: In Our Spare Time"; (9) "Personal Finance: Handling Our Money"; and (10) "Education: Reflections on the Way Life Used to Be" (Scott Guild). (BT)

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Bob Jabaily, Editor

Federal Reserve Bank of Boston, MA.

SO 034 543

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The Ledger

Federal Reserve Bank of Boston's Economic Education Newsletter

Spring/Summer 2002

Warp Speed:

How Life Has Changed Since 1980

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The Ledger

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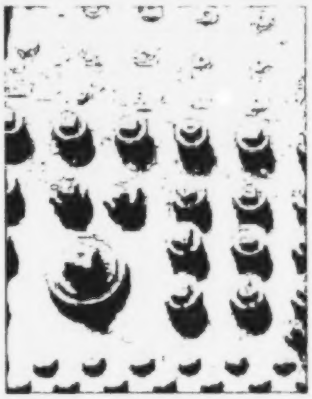

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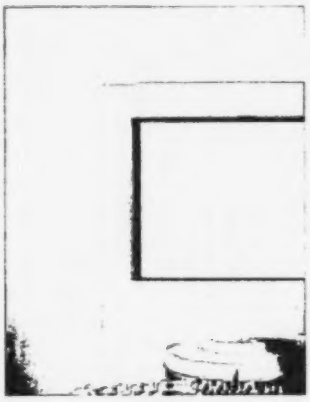

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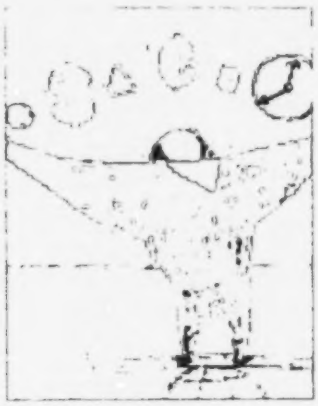

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A World of Change in 20 Years

Go Back to 1980....

Nothing seems to be going right. Inflation is taking a double-digit bite out of your paycheck. Rust is eating your '77 Plymouth Volare, and Japanese carmakers are eating Detroit's lunch. Rising interest rates are putting a big hurt on the housing industry. Factories are closing. Cities are decaying. Farms are failing. And that's just here at home.

The global outlook is no brighter. Fundamentalists have seized the American embassy in Iran, the Soviets are making mischief in Afghanistan, and the Berlin Wall looks as if it might outlast the Great Pyramids.

In short, the present offers little reason for optimism, and the future promises more of the same.

But the future has a way of confounding most predictions. The 1980s and 1990s turned out to be full of surprises:

- The U.S. inflation rate dropped to less than 3 percent during the late 1990s.
- The rate of U.S. homeownership hit an all-time high.
- American cars were able to hold their own against imports.
- Japan went into an economic slump that never seemed to end.
- The Berlin Wall crumbled, the Soviet Union collapsed, and the Cold War ended.

And that's not all. Twenty-plus years of economic and technological change transformed the rhythms and routines of daily life — everything from the way we work to the way shop.

Of course, human nature being what it is, we don't always realize how much life has changed until something triggers a memory that causes us to reflect on the passage of time. The trigger can be as simple as . . . a back issue of *The Ledger*.

Portrait of the "Young Artist" as a Man

A recent foray into *The Ledger* archives uncovered a perfectly preserved copy of our December 1983 issue. And there, on the front page, was a pen-and-ink drawing by Robert Abbanat, a student at McCall Junior High School in Winchester, Massachusetts, during the early 1980s.

Over the years, we'd had the good fortune to talk with Robert's mom from time to time. We'd ask her how the "young artist" was doing, and she'd bring us up to date on his progress through the American educational system.

Then one day it happened, a real Rip van Winkle moment. We asked Robert's mom the usual question: "So, how's the young artist?" Her response confirmed the well-documented fact that time does not stand still.

Robert had graduated from Boston College and headed for Georgia Tech to do graduate work in aerospace engineering. Not long after that, he and one of his professors co-founded Engineered Multimedia, an Atlanta-based company that creates CD-ROMs, Internet sites, and multimedia presentations for an impressive client list that includes CNN and NASA's Jet Propulsion Laboratory. The company's first high-profile project was a computer-generated simulation of the 1997 Mars Pathfinder landing.

Well, you say, that's very nice but not terribly unusual. Lots of talented kids go out into the world and make good. It's a classic American success story that goes all the way back to Ben Franklin.

But there's a twist to our tale: Robert's company, Engineered Multimedia, was using technology that either didn't exist or wasn't widely available when he was in junior high. Back in the early 1980s, the only people online were scientists doing research for the Department of Defense. Even a true visionary might have had trouble imagining that so many of us would soon be surfing the Net, shopping in cyberspace, and swapping jokes via e-mail.

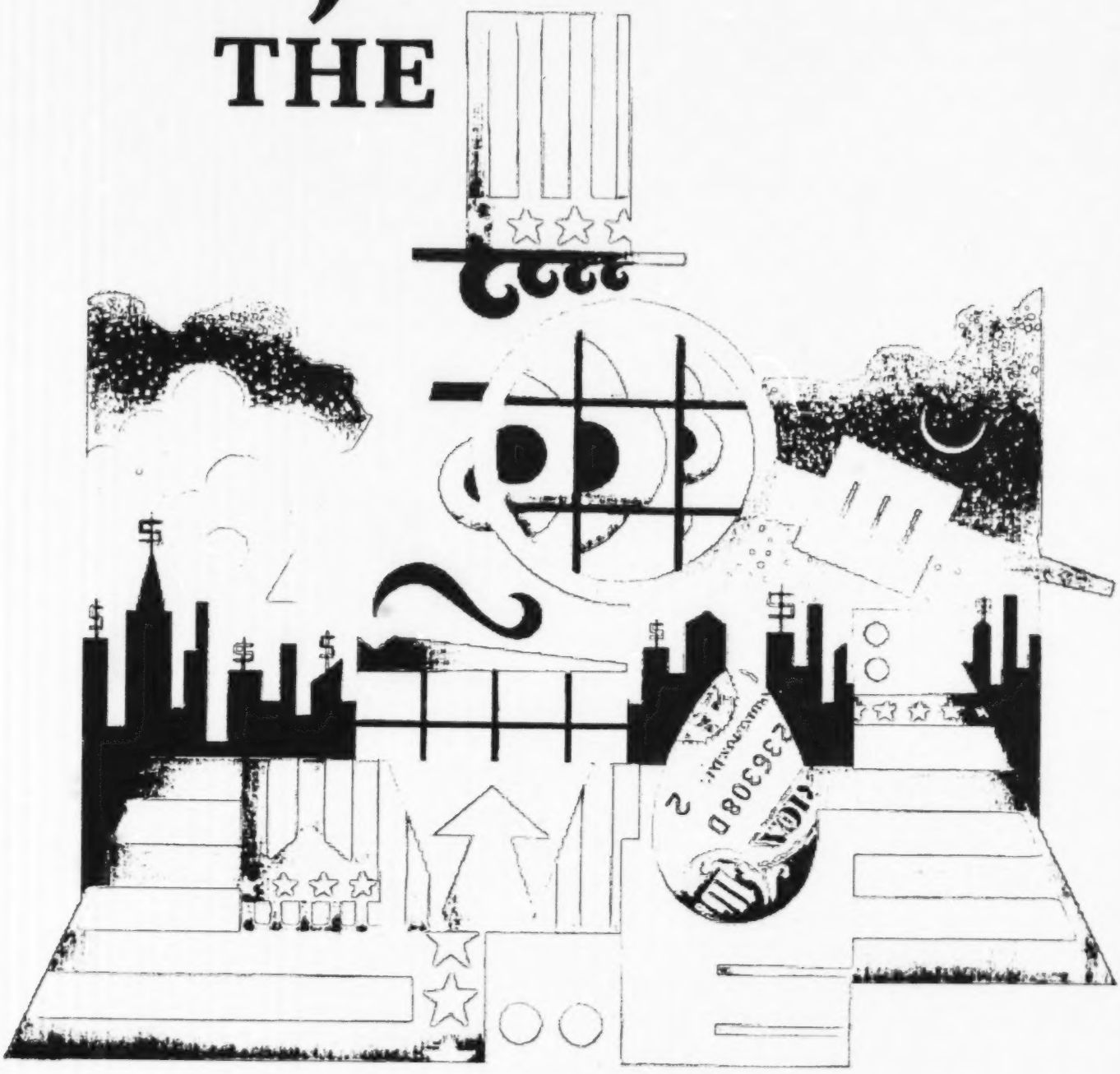
Which is why we thought it might be fun to take a take a closer look at how everyday life changed for all of us during the last two decades of the 20th century. We'll start with an overview of economic and technological changes. Then we'll focus on:

- the way we work,
- the way we handle our money,
- the way we learn,
- the cars we drive,
- how we spend our spare time, and
- the health care we receive.

We don't pretend to offer you an in-depth treatment of each area. Nor do we make any predictions for the future. Our sole aim is to give you a sense of how different our lives became in so short a period of time.

Robert Abbanat's 1983 drawing

JUST THE



FACTS

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	1980	1999
U.S. population	227.7 million	272.7 million
Households	80.8 million	103.9 million
Persons per household	2.76	2.61
Birth rate per 1000 people	15.9	14.5
Expectation of life at birth	73.7 years	76.7 years
Foreign-born	6.2 percent	9.7 percent
Gross Domestic Product (in chained 1996 dollars)	$4.901 trillion	$8.876 trillion
Consumer Price Index (All items, percent change from prior year)	12.5 percent	2.7 percent
Nonfarm employment (percent by industry)		
Manufacturing	22.4 percent	14.4 percent
Other goods-producing industries	5.9 percent	5.4 percent
Service-producing (private sector)	53.6 percent	64.6 percent
Government	18.1percent	15.6 percent
Unemployment rate	7.1 percent	4.2 percent
Median household income (1999 dollars)	$35,851	$40,818
Percent of population below the poverty level	13.0 percent	11.8 percent
Housing		
Percent owner-occupied	64.4 percent	66.8 percent
Education (persons 25 years and over)		
Percent high school graduates	68.6 percent	84.1percent
Percent college graduates	17.0 percent	25.6 percent
Crime		
Violent crimes per 100,000 people	596.6	524.7
Homicide victims per 100,000 people	10.2	5.7
Prisoners	316,000	1,277,000
Health care		
National health expenditures (current dollars)	$247.3 million	$1.21 billion
Persons (under 65) without health insurance	14.3 percent (1984)	16.1 percent
Top-rated TV show	Dallas	Who Wants to Be a Millionaire?
U.S. households with cable TV	22.6 percent	68.0 percent
Car sales		
Domestic	6,581,307	6,979,357
Import	2,397,887	1,718,927
Percent from Japan	21.2 percent	8.7 percent
Dow Jones Industrial Average		
High	1000.17	11,497.12
Low	759.13	9,120.67

Source: U.S. Census Bureau, *Statistical Abstract, USA Statistics in Brief*, and *20th Century Statistics*, **http://www.census.gov/statab/www/** and *The World Almanac and Book of Facts 2001*.

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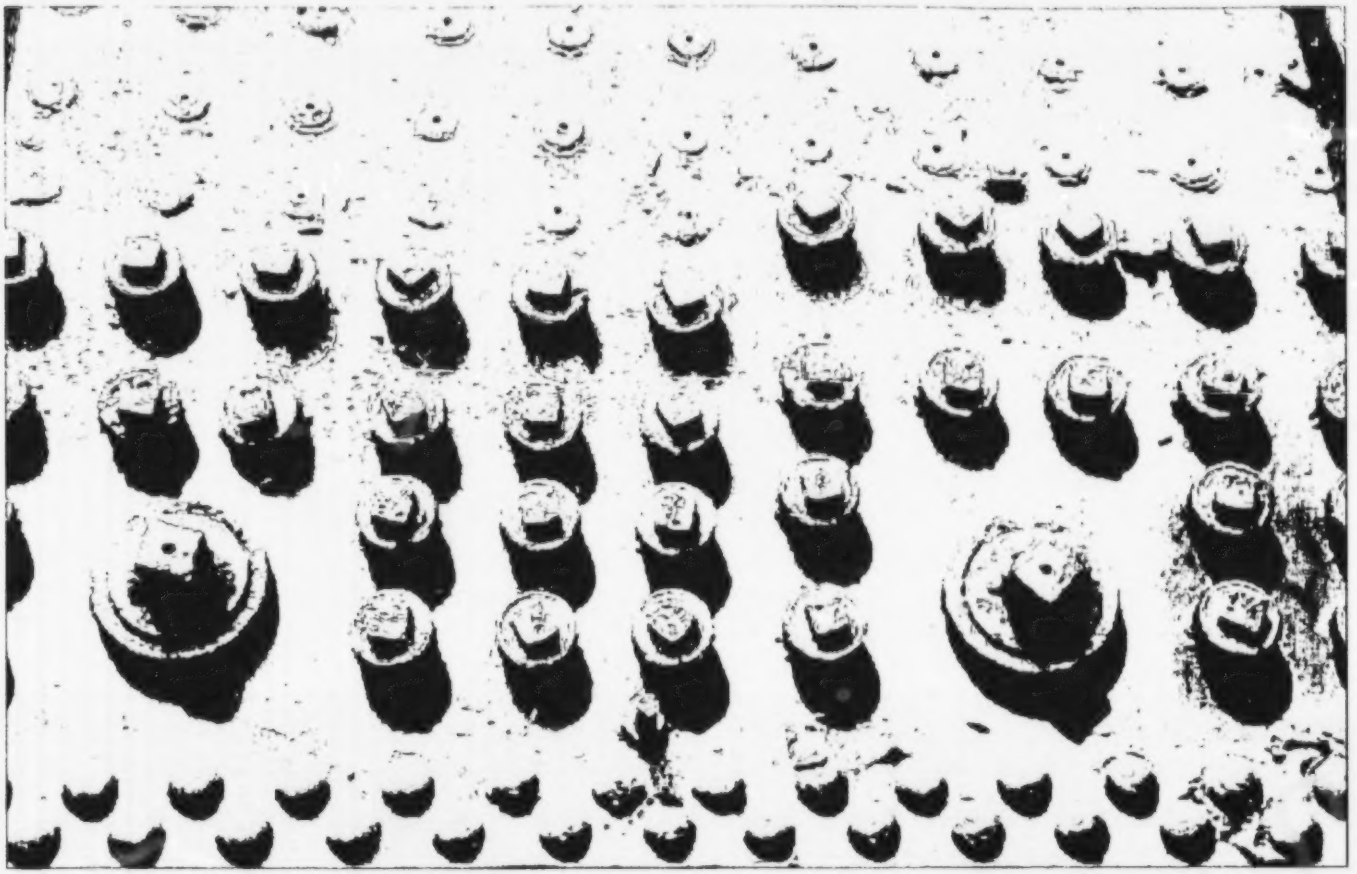

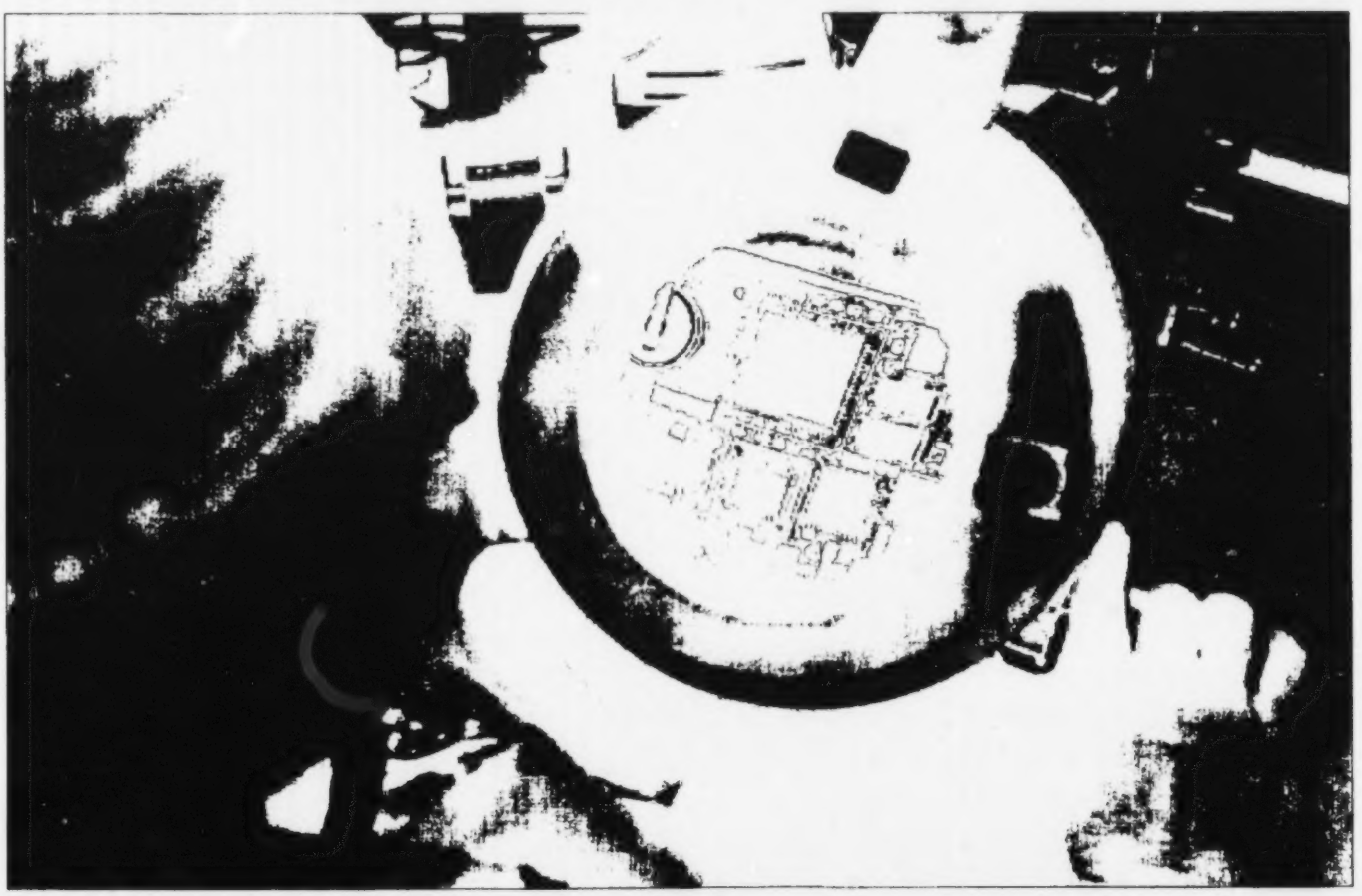

Two (Pleasant)

ECONOMIC SURPRISES

The U.S. economy looked very different at the start of the 1980s than at the end of the 1990s. Two favorable changes made all the difference in the world...

Surprise #1: Strong Economic Growth with Very Little Inflation

On New Year's Day 1983, even eternal optimists must have wondered if the U.S. economy would ever regain its balance. The preceding ten years had seen an unsettling string of economic ups and downs. And all too often, things that should have been up were down (GDP growth), while things that should have been down were up (inflation). Here's a summary:

1974: Stagflation I: GDP contracts by 0.6 percent and the Consumer Price Index climbs 12.3 percent.
1979: Stagflation II: Another round of faltering GDP growth and escalating prices. GDP is up just 0.3 percent in the second quarter, while consumer prices surge 13.3 percent for the year. In October 1979, the Federal Reserve moves to curtail double-digit inflation by implementing an extremely restrictive monetary policy. Interest rates soar, and the economy stalls.
1980: The economy is in recession. The Fed responds by easing monetary policy, and by midyear the recession ends.
1981: Renewed concern over inflation prompts the Fed to tighten monetary policy again. Rates soar past their 1980 levels. The prime rate tops 20 percent, home mortgage rates hit 18 percent, and 22 percent car loan rates prevent a lot of drivers from enjoying the smell of a new car.
1982: The economy sinks back into recession; by yearend the unemployment rate has shot up to 10.8 percent.

As 1983 approached, there was one economic bright spot: Inflation seemed to be moderating; the CPI rose just 3.8 percent for the year.

But inflation had seemed to moderate more than once during the 1970s and early 1980s. Would there be another inflationary spike in 1983 or 1984? The uncertainty of the preceding ten years had made Americans extremely wary. Many were beginning to wonder if the U.S. economy's best days were all in the past.

Then, during the mid-1980s, the economy made a comeback that would surprise nearly everyone with its strength and staying power. The turnaround was so complete that there was talk of a "new paradigm" in which high growth and low inflation would be the norm. (See table, "The Halcyon Late 1990s.")

So, what does this all mean for the future? Has there been a fundamental economic change? Can we look forward to continued strong growth, modest inflation, and low unemployment?

Perhaps the best answer to these questions is a quote often attributed to economist John Kenneth Galbraith: "Economists make predictions, not because they know, but because they are asked." Let's just leave it at that.

Surprise #2: The Federal Government Ran a Surplus

Between 1980 and 1985, the federal debt doubled. Why? The short answer is "too much money going out and not enough coming in." A sharp economic downturn and a substantial federal tax cut combined to reduce revenues; a sizable defense buildup left little leeway for federal spending cuts.

Everyone, from editorial writers to park bench philosophers

worried that the government's fiscal woes were spiraling out of control. Whenever two people got together, one of them was bound to say, "If I ran my business (or household) like that, I'd be bankrupt."

And by 1995 — despite all the talk, the concern, and even some concrete political action — things were no better. Total federal debt approached $5 trillion, and the ratio of federal debt to GDP stood at 67.2 percent — more than double what it was in 1980. (See table on federal debt.)

Then, just when the problem seemed to defy all solutions, the tide of red ink began to subside. The federal government ran budget surpluses in three consecutive years: 1998, 1999, and 2000. And although federal debt totaled nearly $5.7 trillion at the end of 2000, federal debt as a percent of GDP had dropped to 57.3 percent from a mid-decade high of 67.2 percent.

A combination of factors was responsible for the turnaround:

(1) Strong economic growth and a soaring stock market boosted federal tax revenue during the late 1990s and reduced the need for federal spending on economic relief programs.

(2) The federal government maintained a commitment to fiscal restraint.

It was a scenario few would have dared to write in 1985 — or even 1995.

Want to Know More?

For more information on the federal budget, visit the Office of Management and Budget web site and check out *A Citizen's Guide to the Federal Budget.* **http://www.whitehouse.gov/omb/budget/**

Looking for GDP data? Visit the Bureau of Economic Affairs web site. BEA is an agency of the U.S. Department of Commerce. **http://www.bea.doc.gov**

Ever wonder how the CPI is calculated or what goods and services it covers? The answers to these and 20 other related questions are on the Bureau of Labor Statistics web site. **http://www.bls.gov/cpi/cpifaq.htm**

Another useful BLS resource is *Monthly Labor Review*, which features articles on a wide variety of labor force issues: employment, inflation, productivity, and occupational injuries. **http://www.bls.gov/opub/mlr/mlrhome.htm**

For a year-by-year look at monetary policy and inflation during the 1980s, read "Consumer Prices in the 1980s: The Cooling of Inflation." **http://www.bls.gov/opub/mlr/1990/08/artfull.pdf**

"Time Well Spent," the featured essay in the *1997 Annual Report* of the Federal Reserve Bank of Dallas, looks at the declining *real* cost of living in America. **http://www.dallasfed.org/htm/pubs/annual/arpt97.html**

Federal Debt (1980 to 2000)

	TOTAL FEDERAL DEBT	AS PERCENT OF GDP
1980:	$909 billion	33.3
1985:	$1.81 trillion	43.9
1990:	$3.21 trillion	55.9
1995:	$4.92 trillion	67.2
2000:	$5.63 trillion	57.3

Source: U.S. Census Bureau, *Statistical Abstract of the United States: 2001.*

The Halcyon Late 1990s

	U.S. GDP Percent change based on chained 1996 dollars	U.S. CPI Percent change from previous year	UNEMPLOYMENT RATE Percent
1995:	2.7	2.5	5.6
1996:	3.6	3.3	5.4
1997:	4.4	1.7	4.9
1998:	4.3	1.6	4.5
1999:	4.1	2.7	4.2
2000:	4.1	3.4	4.0

Source for GDP data: U.S. Bureau of Economic Analysis, U.S. Department of Commerce.
Source for CPI and unemployment data: U.S. Bureau of Labor Statistics.

THE SWITCH FROM GNP TO GDP

In 1991, the Bureau of Economic Analysis began using gross domestic product (GDP) to measure the size of the U.S. economy. From 1941 to 1991, it had used gross national product (GNP). Here's the difference.

GDP measures the market value of final goods and services produced within a country's borders during a given year. Example: A new car produced by a Japanese-owned company at a factory in Kentucky would be included in the U.S. GDP figures; a new car produced by an American-owned company at a factory in Brazil would not.

GNP measures the market value of final goods and services produced by U.S. residents anywhere in the world, and it includes the income earned on foreign investments made by U.S. citizens and American-owned companies.

For a comprehensive and highly readable discussion of GDP — how it's calculated and what it means — visit the National Council on Economic Education web site.

http://www.econedlink.org/lessons/index.cfm?lesson=EM170

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THREE EXERCISES ON THE '80s AND '90s. . . AND ONE THAT GOES WAY BACK TO THE '60s

Exercise One

New Products of the 1980s...Where Would We Be Without Them?

New products are always hitting the market. Some never make it; others have such an impact that we can scarcely imagine what life was like without them.

The editors of Time-Life Books compiled a list of 30 new products that came on the market in the 1980s. We'll start you off by telling you three of them: cordless telephones, microwave pizza, and Rollerblades. How many of the 27 others can you come up with? (The complete list is on the back cover.)

Exercise Two

Just hit "Enter."

Back in 1980, the phrase "dot.com" would have sounded like random nonsense. There was no context for it. No one knew what a DVD or an e-trade was either.

A host of new words and phrases have come into everyday use since 1980. See if you can come up with 20 of them.

Exercise Three

It's an Eighties Thing . . . Or Maybe a Nineties Thing.

Mention the 1980s and certain things immediately come to mind: Running shoes or maybe MTV. And if we're talking about the 1990s, you might think "Internet" or "stock market."

As part of its "Celebrate the Century" series, the United States Postal Service issued two sets of stamps: one featured the public's picks for 15 memories of the 1980s; the other did the same for the 1990s.

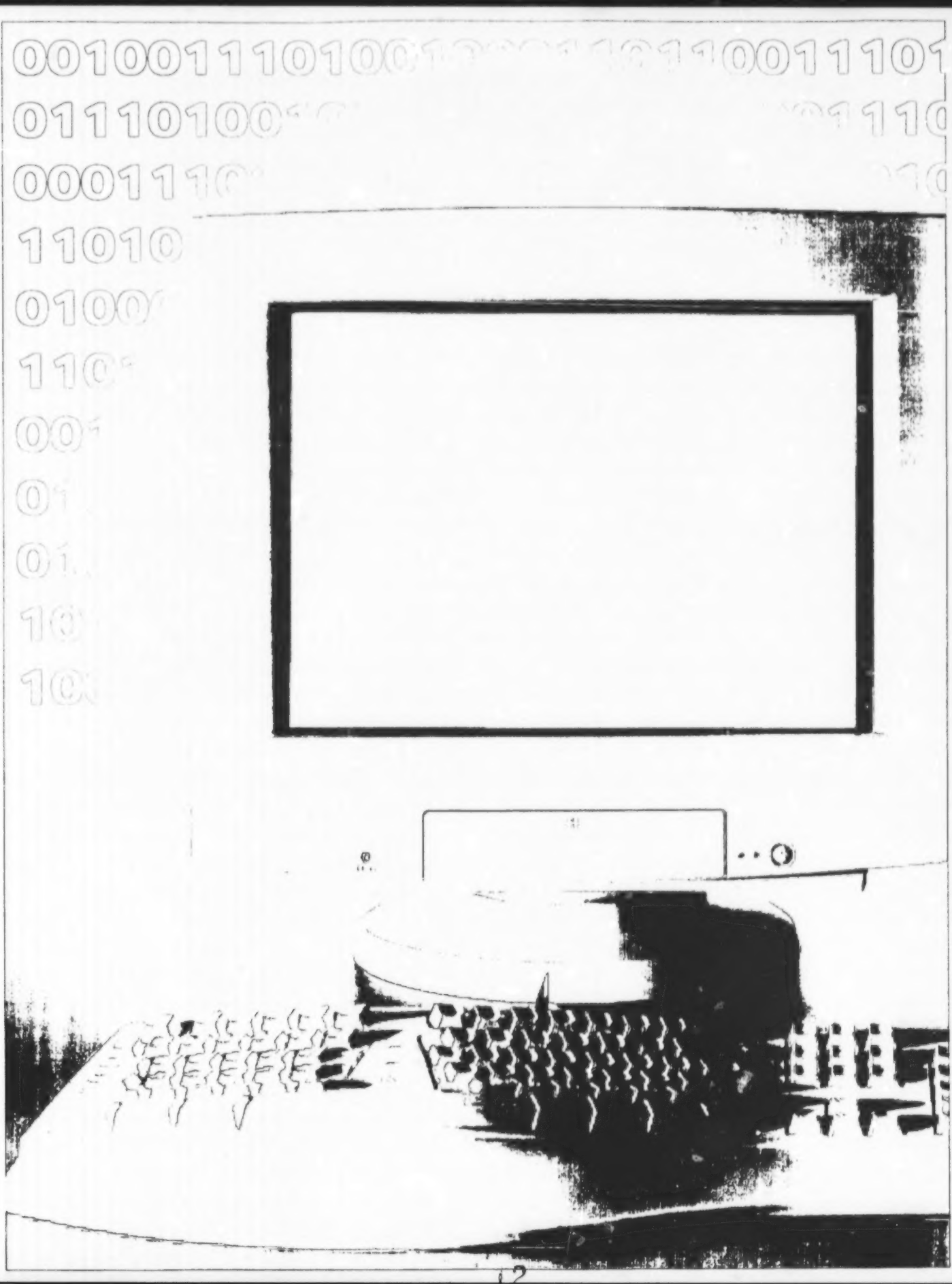
Try to come up with your own list of commemorative images and events for the 1980s and 1990s – fifteen for each decade. Then compare your choices to the list of USPS stamps on the back cover.

Exercise Four

Way Back

For those of you interested in journeying even further back in time than 1980, the Newseum has developed a lesson plan called "1968: The Media and the Messages," which looks at many of the changes that have occurred since 1968. Although it's designed for middle school students, anyone can enjoy it.

http://www.newseum.org/educationcenter/teachingtools/lessonplans.htm



Technology trifecta

In 1982 a cascade of computers beeped and blipped their way into the American office, the American school, the American home. The "information revolution" that futurists have long predicted has arrived, bringing with it the promise of dramatic changes in the way people live and work, perhaps even in the way they think.

Excerpt from
"Machine of the Year: The Computer Moves In"
TIME magazine, January 3, 1983

The computer was TIME magazine's first non-human choice for "Man of the Year" — and with good reason. The electronic digital computer had evolved from a 1940s-era behemoth — 30 tons and 18,000 vacuum tubes — into a compact, affordable desktop unit that could fit unobtrusively into the corner of a workplace cubicle, a home office, a college dorm room, or a studio apartment.

Computers underwent an extraordinary transformation during the early 1980s — not just in size, but also in terms of image. When the decade began, many Americans still regarded computers with a mixture of apprehension and skepticism. Yes, they knew microprocessors could help cars run more efficiently. They also understood that the government might need powerful mainframe computers to process a growing volume of information and enhance national defense. But at the same time they were unsettled by the specter of Big Brother and puzzled as to why anyone would ever need a computer at home.

Then came a flurry of innovations that helped to put the "personal" in personal computer:

1980: Seagate Technology introduces the hard drive.
1981: IBM markets the first PC (which is also the first high-profile computer to use Microsoft's MS-DOS operating system). And the first portable computer is unveiled. Osborne 1 weighs 24 pounds. It features a 64kb memory, a 5-inch display screen, and a $1,795 price tag.
1982: Lotus introduces spreadsheet software that's user-friendly.
1983: Compaq introduces the first PC clone.
1984: Apple introduces the Mac. And CD-ROM technology (jointly developed by Philips and Sony) makes its debut.

By the end of the 20th century, instead of asking why they would ever need a computer at home or on the job, people were more likely to wonder how they ever got along without one.

The Internet

Remember the first time you heard someone talk about "surfing the Net"? Unless you were born after 1980, you probably had no idea what the phrase meant.

Times certainly have changed. These days even technophobes and Luddites are familiar with the Internet.

"Few technologies have spread as quickly, or become so widely used, as computers and the Internet," noted a U.S. Department of Commerce report issued in February 2002. The report, *A Nation Online*, found that as of September 2001:

- Fifty-four percent of the U.S. population — 143 million Americans — used the Internet.
- Internet use was growing at the rate of two million new users per month.
- The number of U.S. households with an Internet connection went from 18.6 million in 1997 to 50.5 million in 2001.
- Between December 1998 and September 2001, Internet use by individuals in the lowest-income households (those earning less than $15,000 per year) increased at a 25 percent annual rate.
- As of September 2001, the percentage of Internet users in rural areas (53 percent) was almost even with the national average.
- Between August 2000 and September 2001, the number of e-mail users jumped from 35.4 percent to 45.2 percent.

In addition to e-mail, we're also using the Net to:
- search for product and service information (36.2 percent);
- search for news, weather, and sports information (33.3 percent);
- make online purchases (21.0 percent);
- conduct our banking (8.1 percent); and
- look for a job (7.5 percent).

In a very short span of time, the Internet transformed computers into appliances for everyday living.

Cell Phones

That old comic strip crime-fighter, Dick Tracy, first used his wrist radio to battle the bad guys in 1946. One year later, the National Bureau of Standards unveiled a working model of the real thing, but with its cluster of tiny radio tubes and its very limited range, the device never caught on.

But 30 years later, in 1977, AT&T Bell Labs launched a prototype cellular telephone system in Chicago, and by 1983 cell phones were ready for their American commercial debut. (Cordless phones, which allow people to walk around the house and talk unencumbered by wires, had begun to hit the market in 1980. But users couldn't stray too far from a base unit that was plugged into a wall socket.)

During the 1990s, cellular phones surged in popularity — in part, because the quality of service improved, but also because competition helped to make the service more affordable.

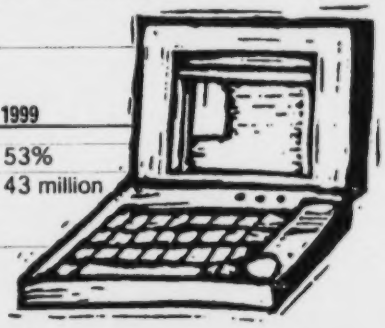
And cell phones are only the beginning. Wireless, handheld computer technology made tremendous advances during the second half of the 1990s.

A 1999 Associated Press article in *USA Today* observed that "Today's cell phone is the communications equivalent of the turn-of-the-century timepiece, the pocket watch. Both contain about 100 parts. And like the pocket watch, the cell phone is poised to become an anachronism as key components shrink." The article chronicled efforts to develop a real-world equivalent

The PC Became a Household Appliance

	1980	1990	1999
U.S. households with computers	<1%	22%	53%
U.S. shipments of personal computers	490,000	9 million	43 million

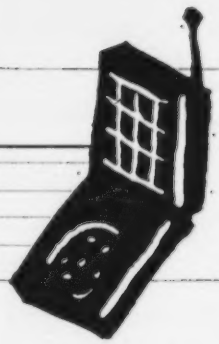
Source: "The New Paradigm," *1999 Annual Report*, Federal Reserve Bank of Dallas.



More Cell Phones Cost Users Less

	1980	1990
Number of cell phone subscribers	5,283,000	109,478,000
Cell phone systems	751	2,440
Average monthly bill	$80.90	$45.27

Source: U.S. Census Bureau, *Statistical Abstract of the United States: 2001.*



of Dick Tracy's wrist communicator — complete with video, text messaging, and satellite navigation. Only time will tell if the device turns out to be a case of life imitating art or just more pie in the sky.

Want to Know More?

Here's an article that can serve as the basis for an engaging classroom exercise. Read it, and then note which of the observations stood the test of time and which didn't:

"Machine of the Year: The Computer Moves In," TIME, January 3, 1983. **http://www.time.com/time/special/moy/1982.html**

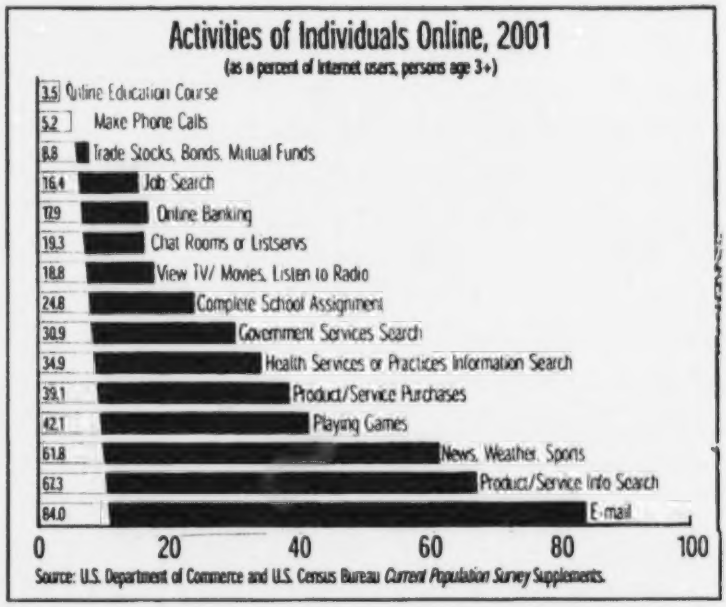
Three more useful sites:

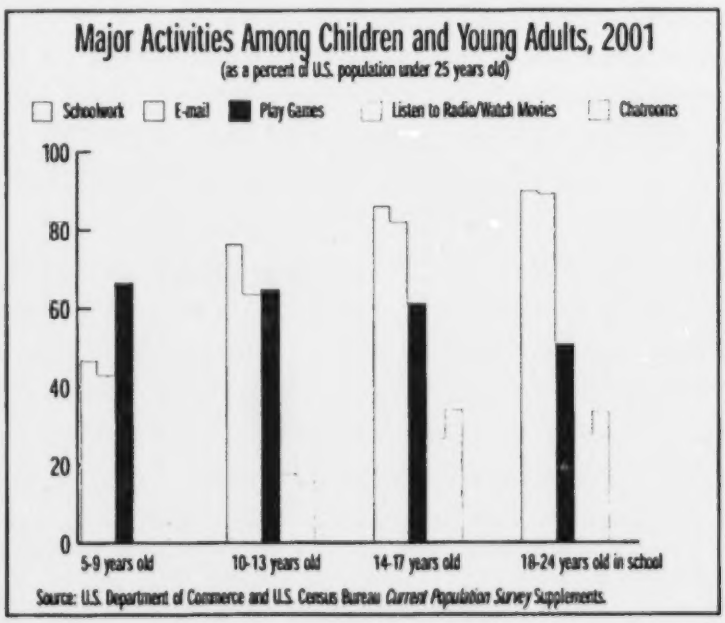
- The Computer Museum History Center, "Timeline of Computer History, 1945-1990" **http://www.computerhistory.org/timeline/**
- A Nation Online: How Americans Are Expanding Their Use of the Internet **http://www.ntia.doc.gov/ntiahome/dn/index.html**
- IBM Archives **http://www-1.ibm.com/ibm/history/**

Want to know how a cell phone works? This site has the answers. **http://www.howstuffworks.com/cell-phone.htm**

There's a connection between the joke you just e-mailed to a friend and the Cold War concern over a Soviet nuclear strike. Visit one of these sites to learn more about how the Internet evolved:

http://www.isoc.org/internet/history/
http://www.loc.gov/global/internet/history.html
http://www.archive.org/


Activities of Individuals Online, 2001
(as a percent of Internet users, persons age 3+)
3.5 Online Education Course
5.2 Make Phone Calls
8.8 Trade Stocks, Bonds, Mutual Funds
16.4 Job Search
17.9 Online Banking
19.3 Chat Rooms or Listservs
18.8 View TV/ Movies, Listen to Radio
24.8 Complete School Assignment
30.9 Government Services Search
34.9 Health Services or Practices Information Search
39.1 Product/Service Purchases
42.1 Playing Games
61.8 News, Weather, Sports
62.3 Product/Service Info Search
84.0 E-mail
0 20 40 60 80 100
Source: U.S. Department of Commerce and U.S. Census Bureau Current Population Survey Supplements.



on the JOB

Office Space 1980

Somewhere, on the other side of a window in time, it's still 1980 and people are putting in another day at the office. Some are banging out their work on electric typewriters, others deftly tap the keys of steel-shrouded adding machines. One of the secretaries holds a piece of carbon paper at arm's length. A payroll clerk delivers a stack of punch cards to the computer room. Employees in the communications department are trying to figure out the company's newest high tech tool – a fax machine.

All the men in the office are wearing ties; most of the women are in dresses or skirts instead of pants. The bluish haze from a dozen smoldering cigarettes finds its way into the eyes, lungs, and clothes of everyone in the room. And over by the water cooler, someone tells an off-color joke that will be grounds for dismissal in another five years.

One guy, who's been with the company for two years, is trying to look inconspicuous as he types his resume. He's been wanting to leave for months but decided to wait because he didn't want to look like a job-hopper.

Office Space 2000

Twenty years later, the office has a far different look and feel. For starters, the tools have changed. A computer terminal sits atop every desk. The staccato chatter of old-time office machines has given way to flickering screens and the muted clicking of plastic keyboards.

Thanks to modern technology, the employees are more connected (shackled?) to their jobs. They take laptops home for the weekend and call the office to check their phone messages when they go on vacation.

Office conduct has changed. Everyone is on a first name basis, and in some offices a necktie or a dress is a sure sign that the wearer is either meeting clients or interviewing for a job. And hardly anyone cares anymore about looking like a "job-hopper." Staying too long in one place isn't good for a career.

Yet, in certain ways, workplace behavior is also more circumscribed than it was in 1980. Smokers have been banished to the outdoors. Liability concerns have tamed the company holiday party. And even PG-rated jokes now start with a disclaimer: "This is a little off-color, but...."

That's not all....

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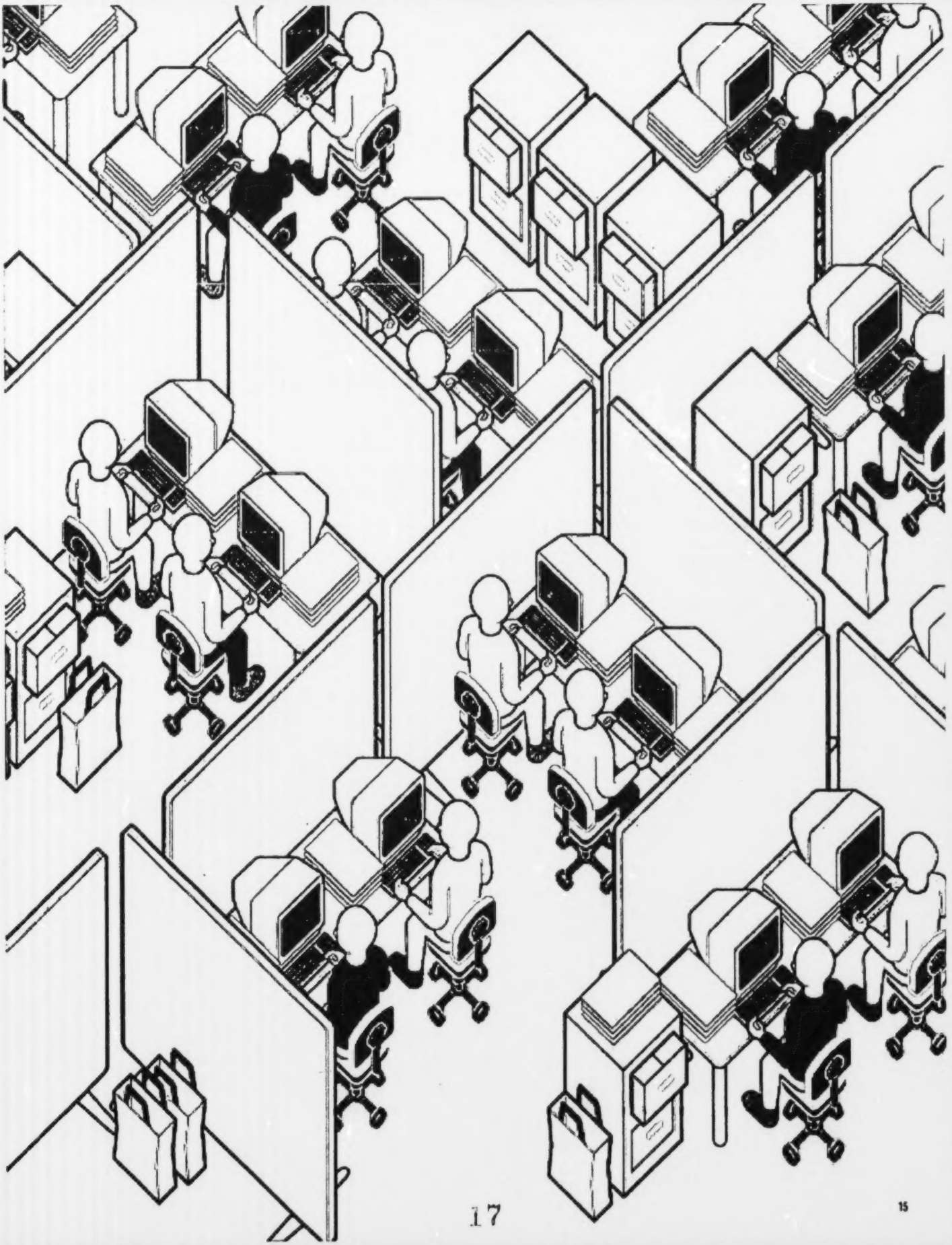


Computers, casual dress, and codes of conduct were among the more visible work-related changes that took place during the '80s and '90s. But they weren't the only ones.

As the top table to the right shows, fewer Americans now earn a living by making things. But we didn't become "a nation of burger flippers."

During the early 1980s, a lot of people were concerned about de-industrialization. Factory closings and foreign competition raised fears that we'd all end up serving burgers and fries to one another. But that didn't happen. Yes, more of us are employed in services, but that category covers a range of well-paid occupations. This is shown in the second table to the right.

The "personnel supply services" numbers tell an interesting story, too. "Personnel supply services" is the official phrase for temp jobs or contract work. The category covers a broad range of occupations — clerical workers, laborers, secretaries, nurses, computer specialists — and according to the Bureau of Labor Statistics *Career Guide to Industries*, personnel supply services "ranks among the fastest growing industries in the nation and is expected to provide the most new jobs" during the first decade of the 21st century.

What triggered the growth in temp jobs? The answer to that question is rooted in a fundamental workplace change that began in the mid-1970s.

During the 30-year period that ran from 1945 to 1975, earning a living in America was, for many people, a fairly straightforward experience. You went to work at the local plant and spent your life producing steel or cars or toasters or shirts or whatever else the local plant produced. If you showed up for work every day, and if you gave the company its money's worth (on most of those days), you could expect to have a job for as long as you wanted it (except for those times when a slow economy forced the company to call a layoff). The money you earned was usually enough to purchase a piece of the American Dream — a house, a car, and maybe a few frills. The company's benefits package gave you peace of mind. And when your kids were ready to enter the job market, chances were good that you could get them in at the plant.

But the rules began to change in the mid-1970s. The unwritten social contract between employers and employees began to erode under pressure from increased foreign competition and rising energy prices.

By the mid-1980s, most American companies realized they

Nonfarm Employment

	1980	1999
Manufacturing	22.4%	14.4 %
Other goods-producing industries	5.9%	5.4 %
Service-producing (private sector)	53.6%	64.6 %
Government	18.1%	15.6 %

Source: U.S. Census Bureau, *Statistical Abstract of the United States: 2001*.

Persons Employed in Services/Selected Categories

(in thousands)

	1980	1999
Finance, insurance, and real estate	5,993	8,815
Computer and data processing	221	2,079
Health services (except hospitals)	3,345	6,529
Elementary, secondary schools	5,550	7,451
Entertainment and recreation	1,047	2,649
Personnel supply services	235	1,066

Source: U.S. Census Bureau, *Statistical Abstract of the United States: 2001*.

Current dollars? Constant dollars?

What does it mean when a statistic is listed in current dollars or constant dollars? Here's an example from Census Bureau data on average hourly earnings (Table 616, *Statistical Abstract of the United States: 2001*).

Average Weekly Earnings for a Production Worker in Manufacturing

	Current Dollars	Constant (1982) Dollars
1980	$289	$337
2000	$597	$342

The current dollar amount shows a sizable increase of $308 over the 20-year period ($597–$289 = $308). At first glance, that looks pretty good. But what about inflation? A dollar didn't have the same purchasing power in 2000 as it did in 1980, so it's hard to make a valid comparison.

That's where constant dollars come in. The constant 1982 dollar figures in our example show that, when adjusted for inflation, the average salary of a production worker in manufacturing barely improved ($342–$337 = $5).

In our example, the Census Bureau and the Bureau of Labor Statistics calculated the constant dollar figure by dividing the current dollar earnings by the Consumer Price Index on a 1982 base. (They used CPI-W, the Consumer Price Index for Urban Wage Earners and Clerical Workers.)

Other Trends

Union membership is down.
Labor Union Membership
(percent of wage and salary workers)

1980	2000
21.9	13.5

The work week is longer.
Average Weekly Hours - Wage and Salary Workers

1980	2000
38.1	39.6

We're less likely to die on the job.
Workers Killed on the Job
(rate per 100,000)

1980	1999
13	4

We're more productive.
Between 1980 and 2000, American businesses became a lot more efficient at converting inputs (labor and materials) into outputs (finished products and services).

U.S. Productivity
Output per Hour, Business Sector

Index (1992=100)

1980	2000
80.4	118.6

Annual Percent Change

1980	2000
–0.3	4.2

More women entered the work force,...
Labor Force Participation Rate for Women
(percent)

1980	2000
51.5	60.2

...and their families enjoyed a higher median income.
Median Family Income (constant 2000 dollars)

	1980	2000
Wife in Paid Labor Force	$53,482	$69,467
Wife Not in Paid Labor Force	$37,749	$39,738

Source: U.S. Census Bureau, *Statistical Abstract of the United States: 2001.*

Overall, the median family income rose.
Median Family Income
(constant 2000 dollars)

1980	2000
$41,830	$50,891

But some families have fared better than others.
When we divide American families into income quintiles (fifths), the numbers show that only those in the top fifth held a bigger share of total U.S. income in 2000 than they did in 1980.

Share of Aggregate Family Income
(percent)

	Lowest Fifth	Second Fifth	Third Fifth	Fourth Fifth	Highest Fifth
1980	5.3	11.6	17.6	24.4	41.1
2000	4.3	9.8	15.5	22.8	47.4

When adjusted for inflation, the average weekly earnings of many American workers were actually lower in 2000 than in 1980,...

Average Weekly Earnings-Nonsupervisory Workers
(constant 1982 dollars)

	1980	2000
Mining	464	442
Construction	430	403
Manufacturing	337	342
Transportation/Public Utilities	410	358
Wholesale Trade	312	335
Retail Trade	172	157
Finance, Insurance, Real Estate	245	314
Services	223	260

. . . and the minimum wage was even lower than it seemed. Between 1980 and 2000, Congress voted five increases in the federal minimum wage. But when adjusted for inflation, the minimum wage actually dropped.

Value of Federal Minimum Hourly Wage

	1980	2000
Current Dollars	$3.10	$5.15
Constant 2000 Dollars	$6.48	$5.15

were dealing with a new set of marketplace realities. If they were going to remain competitive, they would have to become leaner and more flexible. Contract work offered them a way to do both.

"As competition has grown," notes the *Career Guide to Industries*, "businesses have sought new ways to make their staffing patterns more responsive to changes in demand. To achieve this, they have increasingly hired temporary employees with specialized skills to reduce costs and bridge areas where know-how or experience may be lacking."

Between 1980 and 1990, the number of temporary workers in the U.S. labor force more than tripled from 235,000 to 710,000. Most earned a lower hourly wage than full-time workers; few received health insurance, sick days, or paid vacation.

But as the *Career Guide* points out, there's an additional reason for the growth of temp work: "Employment as a temporary [worker] is attractive to many. The opportunity for a short-term source of income while enjoying flexible schedules and opportunities to take extended leaves of absence is well-suited to students, persons juggling job and family responsibilities, those exploring various careers, and those seeking permanent positions in a chosen career."

Want to Know More?

The Bureau of Labor Statistics (BLS) web site is loaded with interesting and useful information:

- BLS home page **http://www.bls.gov/**
- BLS *Current Employment Survey* section has data on employment, hours, and earnings. **http://www.bls.gov/ces/home.htm**
- BLS *Career Guide to Industries* and *Occupational Outlook Handbook* **http://www.bls.gov/oco/cg/home.htm**
- Frequently asked questions about the Consumer Price Index **http://www.bls.gov/cpi/cpifaq.htm**
- Statistics on employment, average hourly earnings, inflation, and productivity: *U.S. Economy at a Glance* **http://www.bls.gov/eag/eag.us.htm**

One section of the U.S. Census Bureau's Historical Income Tables looks at family income in lots of different ways — race, age of householder, number of children, work experience, educational attainment, and more. **http://www.census.gov/hhes/income/histinc/incfamdet.html**

Here are two good essays on productivity:

- "Productivity Growth & The New Economy" (Federal Reserve Bank of Boston *1999 Annual Report*) **http://www.bos.frb.org/genpubs/ar/ar1999/ar1999.pdf,** and
- "Revolutions in Productivity" (Federal Reserve Bank of St. Louis *2000 Annual Report*) **http://www.stls.frb.org/publications/ar/2000/**

For a look at how U.S. working conditions have improved, be sure to check out "Have a Nice Day! The American Journey to Better Working Conditions" (Federal Reserve Bank of Dallas *2000 Annual Report*). **http://www.dallasfed.org/htm/pubs/pdfs/anreport/arpt00.pdf**

The National Building Museum's online exhibit, "On the Job: Design and the American Office," looks at the 20th-century evolution of the American office. **http://www.nbm.org/Exhibits/past/2000_1996/New_On_The_Job_Text.html**

Extinct or Endangered Species of the Workplace

Carbon Paper: No one misses this stuff. What a mess!

Correction Fluid: It's easier just to make a correction onscreen and send another copy to the laser printer.

The IBM Correcting Selectric: As recently as 1980, IBM electric typewriters set the standard for office equipment. Now, if you see one at all, it's usually buried under a pile of surplus office paraphernalia. It hums to life only when the office technophobe needs to address an envelope.

Slide Projectors: Remember when everybody used to worry that the bulb would blow during an important presentation?

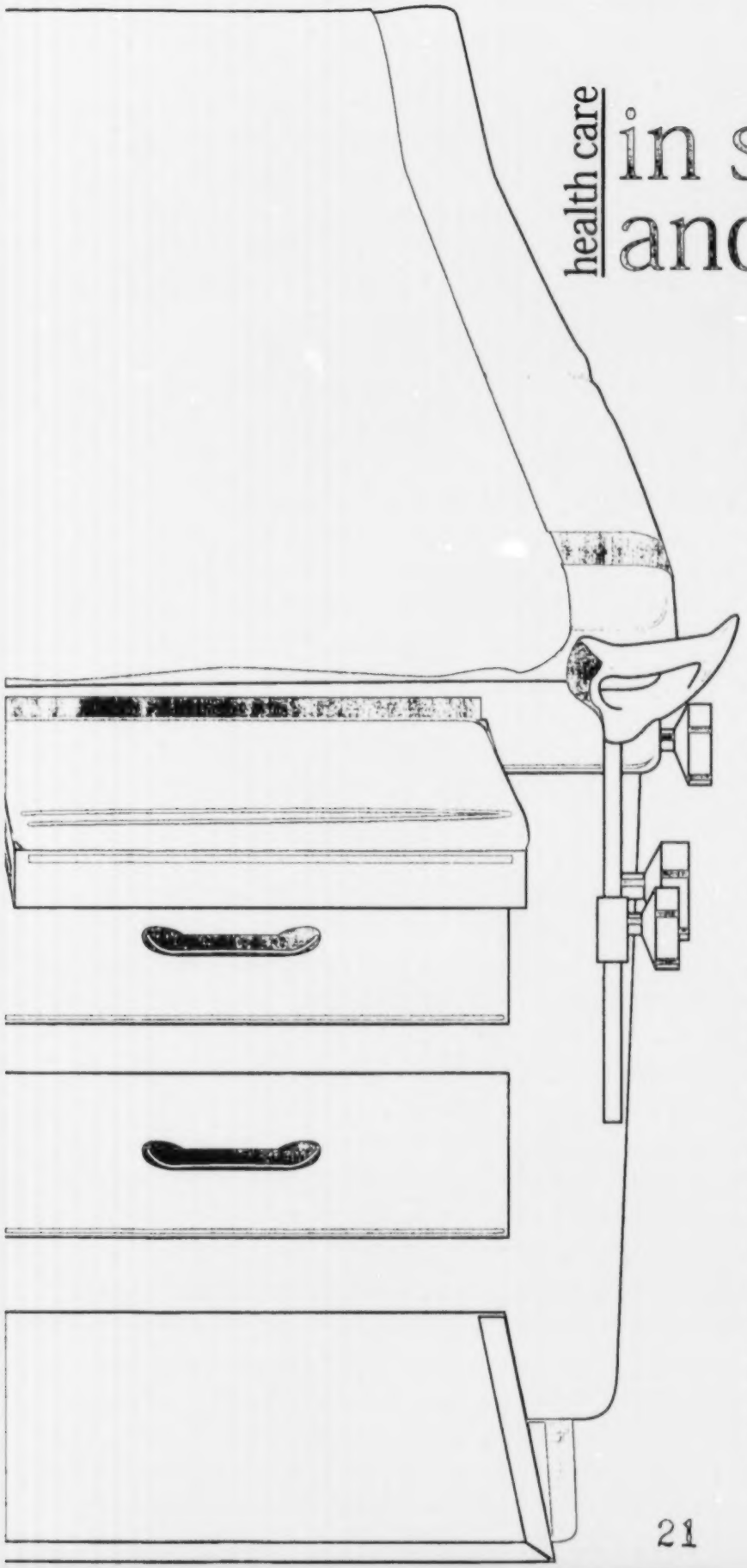
Drafting Tools: Even into the 1980s, graphic designers and drafting personnel were still wrestling with T-squares and paste-up copies. Oh, how they hated to hear the words, "I just have a few small changes."

Mechanical Adding Machines: Shrouded in textured metal, these workhorses were built to last. Now they're stacked up in the surplus storage area.

The Rolodex: Handheld devices will hold all your addresses and can go anywhere you do. But they don't really broadcast your status in the same way that an overflowing Rolodex used to.

Ashtrays: These days the front entrance to your building is one big ashtray.

"Babe-of-the-Month" Calendars: Guys, please . . . don't even think about hanging the *Sports Illustrated* Swimsuit Calendar in your cubicle.



health care in sickness and in health

Getting Better: Medical Advances Since 1980

Someday people will look back and recoil at how primitive medical care was in 1999. But for now, we can allow ourselves to marvel at the considerable number of medical advances that occurred between 1980 and 2000.

- **Non-invasive diagnostic technology** has dramatically reduced the need for exploratory surgery. CAT scans and magnetic resonance imaging are replacing the scalpel as a diagnostic tool. And by the late 1990s, there was the distinct possibility that 3-D computer imaging would make exploratory surgery even more of a rarity.
- **Minimally invasive surgical techniques** have helped to shorten recovery times, diminish the risk of infection, and reduce unnecessary suffering. Scope technology has provided surgeons with a tool for making much smaller incisions. Procedures that once required lengthy hospital stays are often now performed on an out-patient basis.
- **Pharmaceutical advances** are prolonging life and enhancing its quality. Since 1980, there have been dramatic breakthroughs in treating high blood pressure, elevated cholesterol, allergies, schizophrenia, depression, and sexual dysfunction.
- **DNA mapping and gene therapy** hold out the promise of finding cures for conditions that were once thought to be incurable.
- **The AIDS mortality rate has dropped sharply**. Acquired immune deficiency syndrome, which no one had even heard of in 1980, had become one of the leading causes of death in the United States by 1990. But new treatments and

a comprehensive public health campaign significantly reduced AIDS mortality during the mid-1990s. After increasing at an average annual rate of 16 percent during the late 1980s and early 1990s, the AIDS mortality rate declined nearly 29 percent from 1995 to 1996 and almost 48 percent from 1996 to 1997.

• **Early detection and improved treatment** have helped boost the overall five-year cancer survival rate from roughly 50 percent in the early 1980s to better than 60 percent by the end of the 1990s, and the five-year survival rate for certain cancers has shown an even more dramatic increase.

A Chronic Condition: The Rising Cost of Health Care

Yet for all the gains made between 1980 and 2000, one problem has defied solution: rising costs.

Efforts to contain costs have led to a major change in health care delivery: the switch from "fee-for-service" insurance plans to managed care.

Prior to 1980, almost all health insurers operated under the "fee-for-service" model, which gave patients considerable freedom to choose a primary care physician, a specialist, or a hospital. If doctors and hospitals raised their fees, medical insurers raised their premiums. A large portion of the rising costs was passed on to employers; nearly three-quarters of the employers that offered health insurance plans in 1980 paid the full cost to cover their workers. (That number would drop below 35 percent by the mid-1990s.)

Health Care Costs and the Consumer Price Index

Index (1982–1984=100)

	CPI-U (All Urban Consumers)	Medical Care Component of CPI-U
1980	86.3	74.9
2000	172.2	260.8

Source: U.S. Bureau of Labor Statistics.

The switch to "managed care" plans during the mid-1980s was part of an overall effort to rein in rising costs. Managed care organizations — sometimes generically referred to as health maintenance organizations, or HMOs — negotiated high volume contracts with specified doctors, hospitals, pharmacies, and other health care providers. Unauthorized visits to doctors, hospitals, or other health care providers outside the managed care network were not covered by the insurance plan. In a sense, managed care executives were gatekeepers.

The success of managed care varied widely from one plan to another. Some were exceptionally well-run and offered their patients excellent care. Others fell far short. But for better or worse, HMOs had an impact on health care delivery in the United States:

• In 1980, 4 percent of those with health insurance coverage were enrolled in HMOs. By 2000, the number was up to 30 percent.

• In 1980, the average hospital stay was 7.3 days; by the end of 1999 it was down to 5.0 days. Two factors were largely responsible for the drop: (1) technological advances helped to cut patient recovery times, and (2) HMOs were limiting hospital stays in an effort to contain costs.

An Ounce of Prevention: Wellness and Lifestyle

An American born in 2000 could expect to live 76.9 years — up 3.2 years from 1980. In part, that's due to health care advances, but it's also a reflection of our increased attention to wellness and fitness. We may not always succeed, but at least we seem to be more conscious of the fact that diet, exercise, and other lifestyle changes can have a positive impact on our health and well-being.

For one thing, as the table on the next page shows, we have

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changed the way we eat and drink.

Overall, we're spending a smaller portion of our disposable income on food: 10.7 percent in 1997 versus 13.4 percent in 1980. But because our lives have become so busy, we're spending nearly 40 percent of our food budget on restaurant meals and takeout. That's up from roughly 32 percent in 1980.

We're also making lifestyle changes that go beyond what we eat and drink. Fewer of us are smoking cigarettes: 24.1 percent in 1998 versus 30.1 percent in 1985. And in a trend we can trace back to the early 1980s, when everyone started wearing higher-priced sneakers and sweating to *Jane Fonda's Workout*, we're trying to stay active. In 1998, 77.6 million Americans walked for exercise, 58.2 million swam, and 46.1 million worked out on exercise equipment.

Of course, there are no statistics on how many home treadmills and rowing machines are collecting dust in the basement.

Want to Know More?

The DNA Files, based on a series distributed by National Public Radio, takes an in-depth look at genetic science. **http://www.dnafiles.org/home.html**

The National Institutes of Health web site, **http://www.nih.gov/**, and the Center for Disease Control web site, **http://www.cdc.gov**, both have lots of good information on a variety of health-related issues.

The NIH site also has a comprehensive review of the battle against AIDS, including a detailed AIDS history timeline. **http://aidshistory.nih.gov/home.html**

The U.S. Department of Agriculture site, **www.usda.gov**, has information on a variety of food-related issues, including a section on diet and nutrition. **http://www.nutrition.gov/home/index.php3**

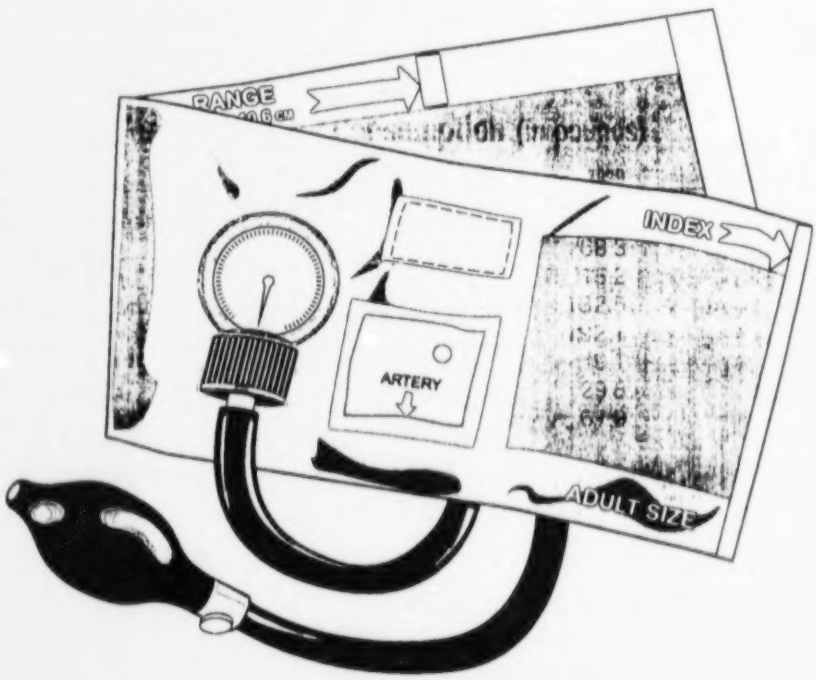
U.S. Per Capita Food Consumption (in pounds)

	1980	1999
Red meat	126.4	117.7
Poultry	40.8	68.3
Fish and shellfish	12.4	15.2
Fresh fruits	104.8	132.5
Fresh vegetables	149.1	192.1
Yogurt (1/2 pints, excl. frozen)	4.6	9.1
Cheese	17.5	29.8
Refined sugar	83.6	67.9

U.S. Per Capita Beverage Consumption (in gallons)

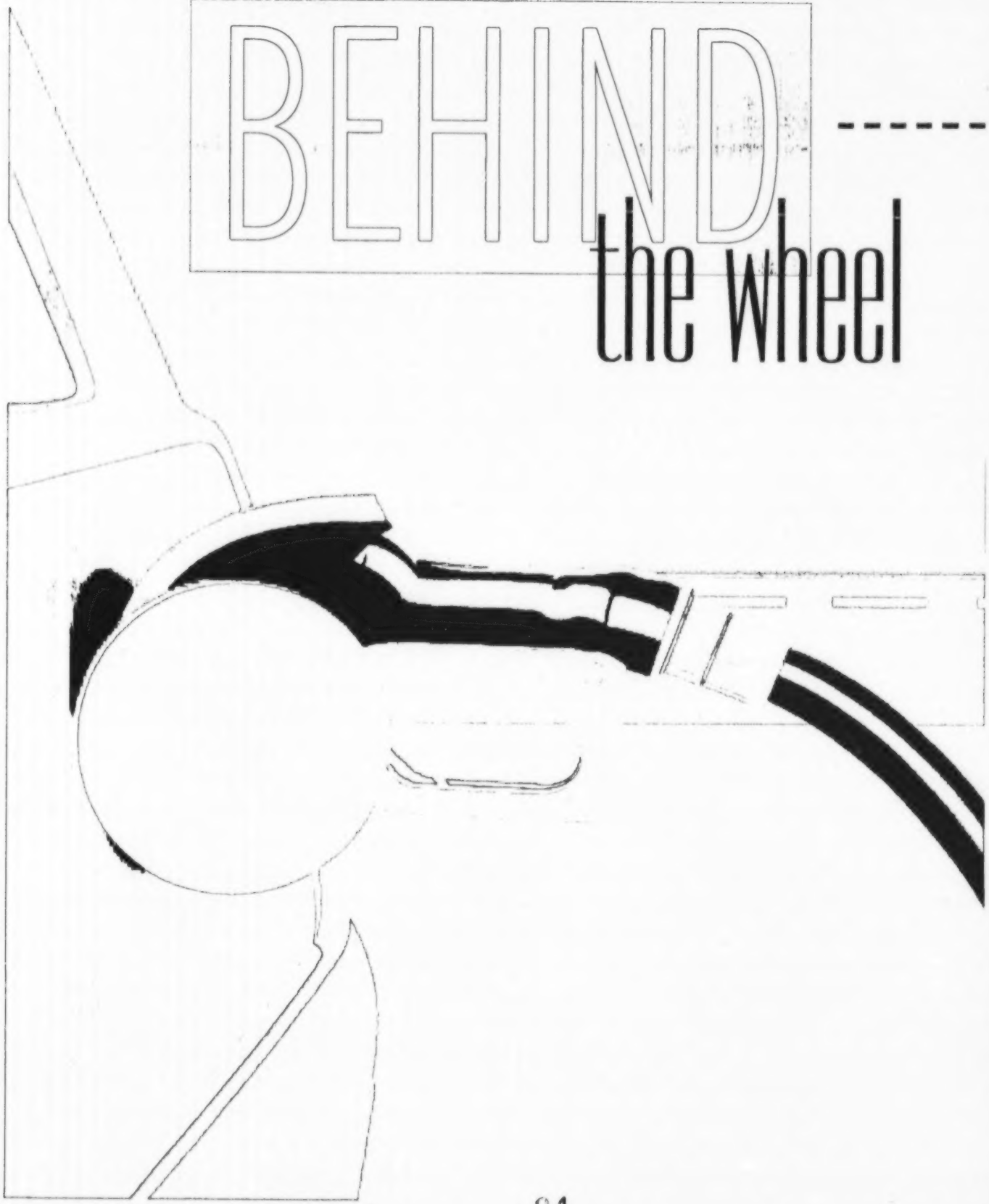
	1980	1999
Whole milk	16.5	8.4
Reduced-fat, light, and skim milk	10.5	15.2
Bottled water	2.4	18.1
Coffee	26.7	25.7
Carbonated soft drinks		
Diet	5.1	11.7
Regular	29.9	39.1
Alcoholic beverages		
Beer	36.6	31.9
Wine	3.2	2.7
Distilled spirits	3.0	1.8

Source: U.S. Census Bureau, *Statistical Abstract of the United States: 2001.*



the automobile

BEHIND ----- the wheel



Cleaner, safer, higher quality American cars

The 1970s and early 1980s were not a happy time for the U.S. auto industry. First, there was the 1973 Arab oil embargo that introduced American drivers to the new and unpleasant experience of waiting in line to pay top dollar for scarce gas. Then, in 1979, just as memories of the energy crisis were fading, political turmoil in Iran triggered energy crisis II.

And if expensive gas wasn't enough of a challenge for Detroit, there was also the "quality gap." During the 1970s, Japanese cars had earned a reputation for fit, finish, and reliability, while American cars had gained notoriety for faulty door handles, rusting rocker panels, and exploding gas tanks.

By the early 1980s, Detroit's gas guzzlers were being widely written off as wasteful, inefficient dinosaurs, ill-suited to compete and survive in a world of rising energy prices. The future belonged to reliable, fuel efficient subcompacts from Japan.

Or so it seemed.

But once again, the future had a surprise in store. By the mid-1990s, American cars were making a strong comeback . . . and gas guzzlers were leading the way!

What had changed?

For one thing, the energy crunch didn't last. The real price of gasoline (in constant 1995 dollars) declined from a historic high of $2.27 a gallon in 1981 to a historic low of just under 97 cents in 1998.

That had a big impact on buyer preferences. Americans started going back to those big, roomy vehicles that most had never really wanted to give up in the first place.

But there was a twist. Instead of returning to full-size family sedans and high-performance muscle cars, consumers turned their affections to light trucks — minivans, pickups, and sport utility vehicles.

The trend started in 1983 with the highly successful rollout of Chrysler minivans. Then pickup truck and SUV sales took off, and by 2001, light trucks had captured 51 percent of the market.

What Mattered to Car Buyers

	1980	1998
Fuel economy	42 percent	4 percent
Dependability	31 percent	36 percent
Low price	14 percent	5 percent
Quality	4 percent	20 percent
Safety	9 percent	34 percent

Source: U.S. Department of Energy, Office of Transportation Technologies
http://www.ott.doe.gov/facts/archives/fotw178supp.shtml

Another striking difference between the early '80s and the late '90s was the increased demand for safe cars. For years, car companies had been guided by the maxim that "safety doesn't sell." And for most of those years, they'd been right. Safety had always taken a back seat to style, comfort, and price. But when consumer advocates and government regulators made safety a high-profile issue, buyers began to demand safer cars, and manufacturers responded with innovations such as dual airbags,

U.S. Highway Fatalities

	1980	1998
Total fatalities (drivers and passengers)	41,927	35,359
Fatalities per:		
100 million vehicle miles traveled	3.3	1.6
100,000 licensed drivers	35.2	22.4
100,000 registered vehicles	31.6	20.0
100,000 population	22.5	15.3

Source: National Highway Traffic Safety Administration and U.S. Census Bureau, *Statistical Abstract of the United States: 2000.*

side impact protection, and antilock brakes — all of which became common features by the end of the '90s. And the safety enhancements paid off in lives saved. (See table "U.S. Highway Fatalities.")

Cars also became a lot cleaner, thanks to the combined impact of public pressure, federal legislation, and technological innovation. Although the number of cars on U.S. roads nearly doubled in the 29 years after Congress passed the Clean Air Act of 1970, vehicular emissions of carbon monoxide, volatile organic compounds, and small particulate matter declined by 43 percent, 59 percent, and 32 percent, respectively. And federal regulations leading to the phase-out of leaded gasoline virtually eliminated one of the biggest sources of lead emissions.

Cleaner, safer, higher-quality American cars: Who could have imagined it in 1980?

LOVE THOSE BIG CARS

Americans never really wanted to give up big cars — not even when the gas pumps went dry in the 1970s. And when we couldn't drive them ourselves, we turned on our televisions or settled into a seat at the movies to watch other people burn up the highways in high-performance machines.

In 1977, midway between energy crisis I and energy crisis II, moviegoers lined up at the box office to watch the Bandit outrun Smokey in a '77 Pontiac SE Trans Am that no one would ever describe as fuel efficient. Then in 1979, when the cutoff of Iranian oil sent gas prices skyward, viewers tuned in every week to watch the Duke boys, Bo and Luke, tear through Hazzard County in The General Lee — a '69 Dodge Charger that couldn't have gotten more than 12 miles per gallon. And let's not forget *Knight Rider*. In 1982, when a lot of people still thought the world was going to run out of oil in 50 years, Michael Long – a.k.a. Michael Knight, a.k.a. David Hasselhof — motored into prime time behind the wheel of a customized Trans Am.

But times change. Those old, rumbling American muscle cars are all but gone — victims of changing fashions and steep insurance rates. When GM announced that 2002 would mark the end of the road for Chevy Camaros and Pontiac Trans Ams, it cited a 53 percent drop in sales as the reason.

These days, drivers are more interested in boxy, high-riding SUVs. And if there's one thing Detroit learned during the 1980s, it's this: "Listen to your customers, and give them what they want." That's how markets work.

But, still, you have to wonder if drivers will ever look back and smile when they think about "that old four-wheel-drive sport utility vehicle" they used to own.

Want to Know More?

The Department of Energy web site has an excellent timeline of energy-related issues, 1939-1998.
http://www.energy.gov.aboutus/history/timeline.html

The Department of Energy's Office of Transportation Technology maintains a "Fact of the Week" archive that contains more than 200 entries. Be sure to check it out.
http://www.ott.doe.gov/facts/archives

The OTT site also has information on the latest trends in automotive energy efficiency. **http://www.ott.doe.gov/pdfs/oaataccomp.pdf**

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Aside from going online, the things we do in our spare time are pretty much the same as they were in 1980: watch TV, go to the movies, read, listen to music, follow sports, play a few sports ourselves, and shop 'til we drop. What's changed is the way we do these things.

TV Land

Whether we like to admit it or not, many of us spend a good portion of our spare time watching TV. According to Nielsen Media Research, the average daily viewing time per household rose from 6 hours and 36 minutes in 1980 to 7 hours and 35 minutes in 2000.

And almost everyone has a TV. Between 1980 and 2000, the number of U.S. households with at least one TV set held steady at 98 percent, but the number of multi-set households jumped from 50 percent to 75 percent. Almost 100 percent of all TV households — 99.9 percent to be exact — have at least one color set, up from 83 percent in 1980.

The number of TV households with at least one VCR jumped from 1 percent in 1981 to 91 percent in 2002. And annual sales of DVD players soared from 320,000 in 1997 to 16,700,000 in 2001.

A well-equipped "home entertainment center," circa 1985, boasted a 19-inch color TV, maybe a VCR, a turntable for vinyl records, a tape player, an amplifier, and a pair of speakers. But by the late 1990s, home entertainment centers had given way to home theaters — a (very) big-screen TV attached to a state-of-the-art speaker system, a CD player, a DVD player, and a game platform. (The VCR and tape player are still part of the mix, but they aren't getting as much use.)

Other changes in TV land:

- Ted Turner and CNN pioneered 24-hour worldwide news coverage in 1980. (Skeptics wondered who'd watch. Now we know.)
- MTV debuted in 1981.
- Rupert Murdoch launched Fox Broadcasting in 1987. (Two years later, *The Simpsons* hit the airwaves and transformed Fox into a viable fourth network.)

And then there was the explosive growth of cable TV. Less than 20 percent of all U.S. television households had cable service in 1980, and viewers were likely to wonder why anyone would pay to watch television. But by 2002, cable had found its way into nearly 70 percent of all U.S. TV households, and for better or worse it had altered our viewing habits. Programming is more specialized, and audiences are more fragmented. There are cable channels devoted entirely to news, sports, music, weather, cooking, shopping, comedy, cartoons, game shows, travel — you name it. Cable has also undercut the influence of broadcast networks . . . and network censors. The most innovative, influential programs are now on cable, and content is much more graphic than it used to be. Tony Soprano and his pals can say things on TV that we never would have heard in 1980. And as for *Sex in the City* . . . well, in 1980 there wouldn't even have been a show called *Sex in the City*.

Music to Our Ears

"Eight-track tape" was early 1980s shorthand for "loser." Cool people listened to the smaller cassettes that dominated music sales until CDs came along in the early 1990s.

Technology — digital recording technology in particular — turned the music industry on its ear. CDs hit the consumer market in 1982, and by 1995 they were outselling cassettes three to one. In the late 1990s, MP3 technology made it

possible to compress all the digital information on a music CD into a file that's relatively easy to download — with very little loss of sound quality. Then along came Napster and a few others to make it easier for Internet users to share music files online.

It's still too early to know exactly how all this will affect the music industry. But one thing seems certain: The production and consumption of recorded music will never be the same.

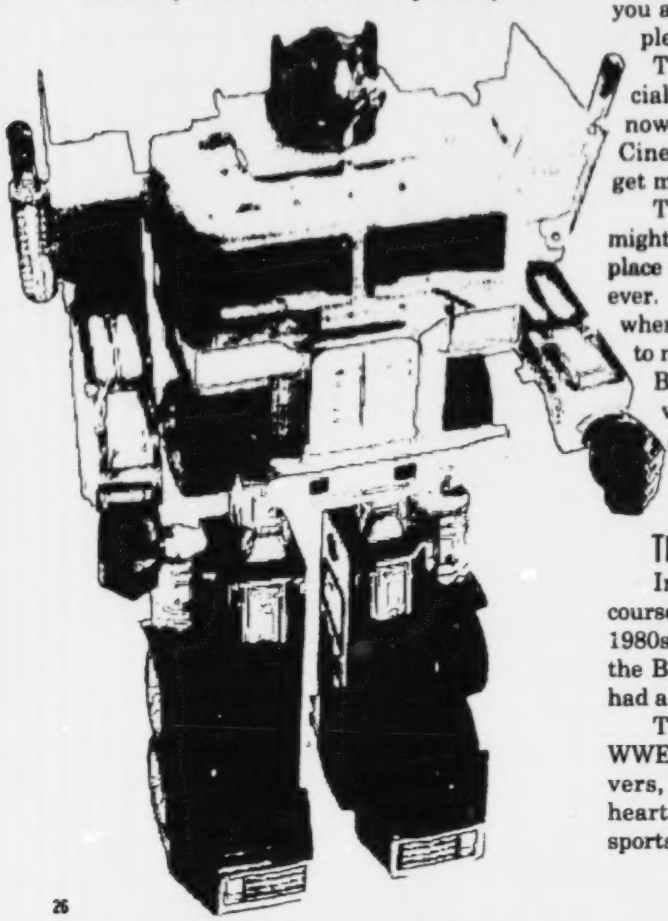
Hard Copy

Does anyone still read? Yes, but our tastes and reading habits aren't exactly the same as they were in 1980.

For example, one set of figures seems to indicate that we're not reading the newspaper as much as we used to, but other figures suggest that maybe we're just more inclined to read a newspaper in the morning and look at TV news in the evening.

And, yes, books may be retro, but we're still buying them. Total U.S. book sales topped $25.3 billion in 2001, and sales of juvenile titles were up nearly 18 percent over the preceding year — either kids are reading more than we think, or adults really like Harry Potter.

But you might want to think twice before quitting your job to open the cozy little bookshop of your dreams. Superstores and online vendors are making it tougher and tougher for small, independent booksellers to survive.



What Is Hip?

Manufacturers' Shipments of Recorded Media - United States (in millions)

	1982	1990	2000
Vinyl albums	243.9	11.7	2.2
Cassettes	182.3	442.2	76.0
Music CDs	NA	286.5	942.5

Source: U.S. Census Bureau, *Statistical Abstract of the United States: 2001.*

Stop the Presses?

	1980	2000
Total number of U.S. daily newspapers	1,745	1,480
Total circulation	62.2 million	55.8 million
Circulation of evening dailies	32.7 million	9.0 million
Circulation of morning dailies	29.4 million	46.8 million

Source: U.S. Census Bureau, *Statistical Abstract of the United States: 2001.*

The Movies: Lights, Camera, (Lots of) Action

How have movies changed since 1980? Three phrases tell you almost everything you need to know: Special effects, multiplex theaters, action films.

The 1980s began with audiences still marveling at the special effects in *E.T.* and *Star Wars*. But compared to what we now see onscreen, *Star Wars* seems long ago and far away. Cinematic special effects and computer-generated animation get more spectacular every year.

Theaters are more technologically advanced, too. A multiplex might not have the charm of a small art house, but it's not a bad place to watch a film. Sound and projection quality are better than ever. And thanks to stadium seating, you don't have to get angry when some hat-wearing oaf sits in front of you. It's almost enough to make you forget how much your ticket cost.

But what about the films themselves? Do audiences really want to see *Revenge of the Die Hard Terminator, Part 7*? The short answer, of course, is "yes." Action films make money — especially in the international market. Fast action and dazzling special effects play well in any language.

The Sporting Life

In some ways, pro sports and television followed a parallel course during the last two decades of the 20th century. When the 1980s began, ABC, CBS, and NBC still dominated television, and the Big Four — basketball, baseball, football, and hockey — still had a lock on most of the pro sports action.

Then along came ESPN, Fox Sports, NASCAR, and the WWE to shake things up. By the end of the 1990s, stock car drivers, pro wrestlers, and extreme athletes were winning the hearts of young fans and capturing a respectable share of the sports/entertainment market.

Shopping: The Other Great American Pastime

When the 1980s began, advertisements for the Yellow Pages still urged shoppers to let their "fingers do the walking." Twenty years later, shoppers were indeed letting their fingers do the walking, but they were walking across the keyboards of computers that hadn't even been invented in 1980. We're now able (and willing) to shop nationwide, or even worldwide, for the right product at the best price. And for the most part, we're doing it on our own, without a lot of guidance from salespeople.

In fact, whether we're online or in line, shopping has become much more of a self-service experience. Some of the things we now do for ourselves are fairly simple: Pump our own gas, access our bank accounts via automated teller machines, scan and bag our own groceries at the supermarket. But there are other things that many of us might not have attempted in 1980 without the assistance of a trained professional — things like making our own travel arrangements or buying and selling stocks.

Of course, now that we're living in a self-service world, we'd all do well to heed an ancient dictum of marketplace: *Caveat emptor* — Let the buyer beware. And that holds true whether we're trading stocks online or scanning coupons at the supermarket.

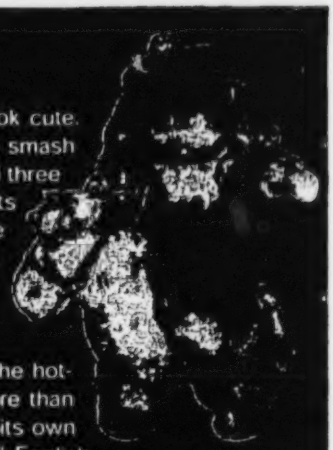
Want to Know More?

The TV Basics web site has lots of information on TV advertising and the growth of television. **http://www.tvb.org/tvfacts/index.htm**

An extensive online chronology of recording technology history is available at **http://history.acusd.edu/gen/recording/notes.html**.

For more information on the changing economics of pro sports, check out *Peanuts & Crackerjacks*. **http://www.bos.frb.org/peanuts/leadpgs/intro.htm**

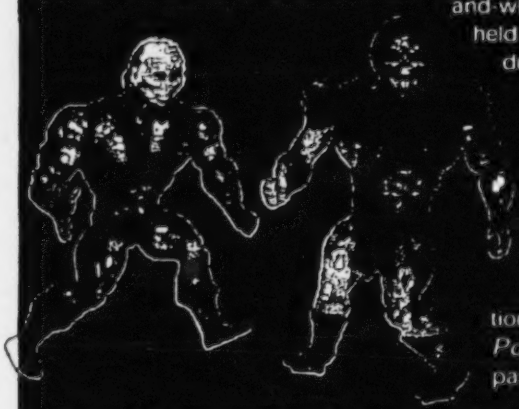
Technology Comes to Toyland



They didn't walk. They didn't talk. All they did was look cute. But that was enough to make Cabbage Patch Kids the smash hit of the 1983 holiday shopping season. Sales topped three million, and by early December the moon-faced moppets had all but disappeared from store shelves. Desperate parents were hooking up with some pretty unsavory characters, and paying way more than the $30 retail price, just to get their hands on . . . a vinyl-headed doll!

Fifteen years later, another cuddly little character was the hot-selling holiday sensation. But Furby could do a lot more than look cute. The fist-sized ball of fluff spoke a dialect all its own (Furbish) and had the programmed capability to "learn" English — all for a retail price of $29.

Games had gone "high-tech," too. The trend started with *Pong*, a no-frills, black-and-white version of video ping pong that held players in its thrall for countless hours during the 1970s. Then, in the early 1980s, *Pac Man* and *Donkey Kong* worked the arcades, while a collection of companies jockeyed for position in the home entertainment market.



And that was only the beginning. By the late 1990s, a new generation of games and home platforms made *Pong* and *Pac Man* seem like cave paintings.

State of Emergency, which debuted in 2001, would have been almost inconceivable 20 years earlier — in part because the technology didn't exist, but also because its story line depends on an economic and political context that was barely taking shape when *Pac Man* and *Donkey Kong* ruled the arcades. Here's how columnist Wagner James Au described the game in an article for the online magazine *Salon*:

> *State of Emergency* is set in the very near future, when the wildest anti-globalization prophecies have come to pass: A giant multinational corporation now dominates the entire country, devastating the environment, dissolving all democratic governance, controlling all media. Dissent is prohibited, and the only glimmer of resistance is from the Freedom Movement, an underground affiliation of young people who take to the streets with their faces masked by bandanas. (February 22, 2002)

The irony, of course, is that *State of Emergency* is a product of globalization. A Scottish company created it for use on a game platform developed by a multinational entertainment conglomerate. (But that's another story.)

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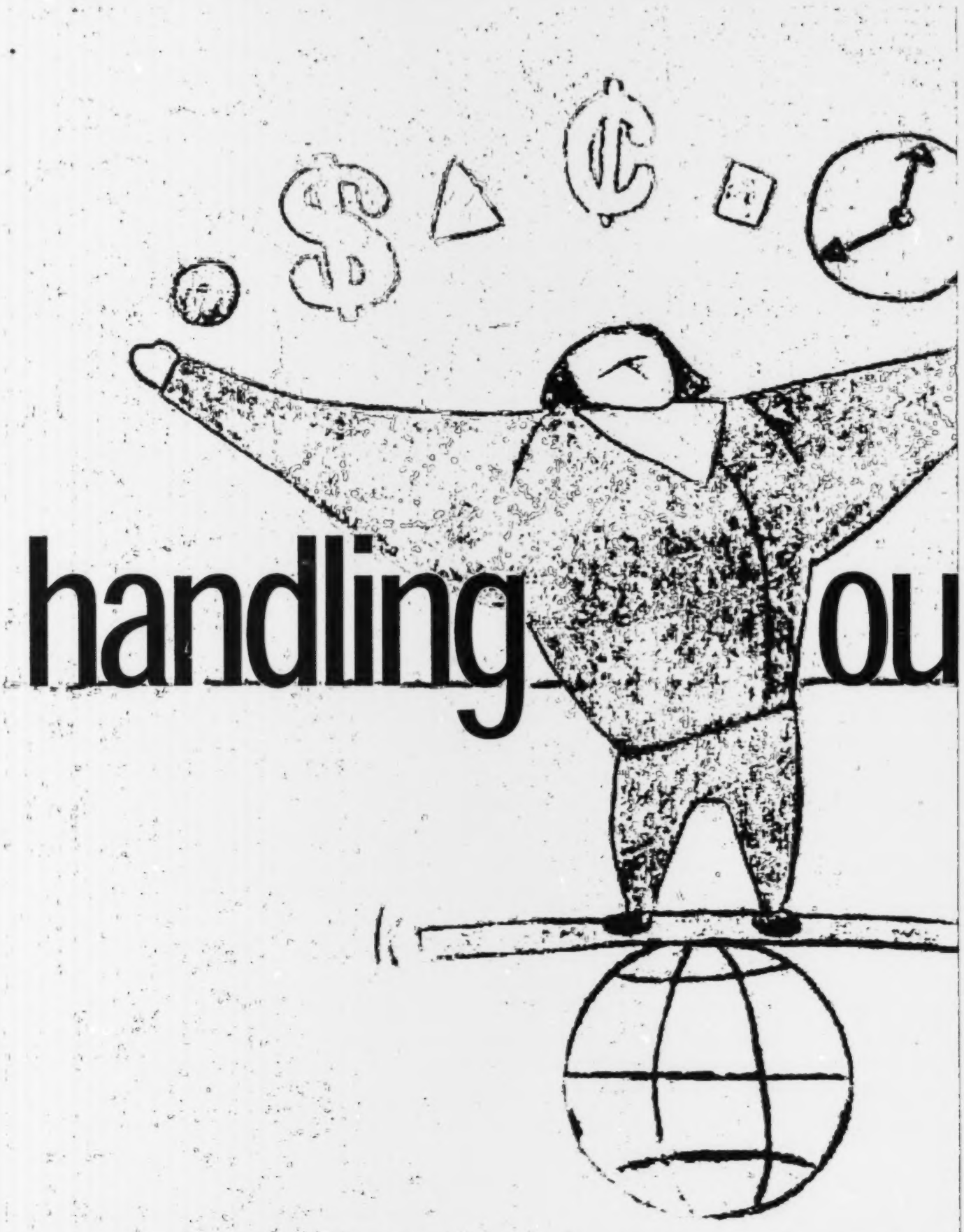
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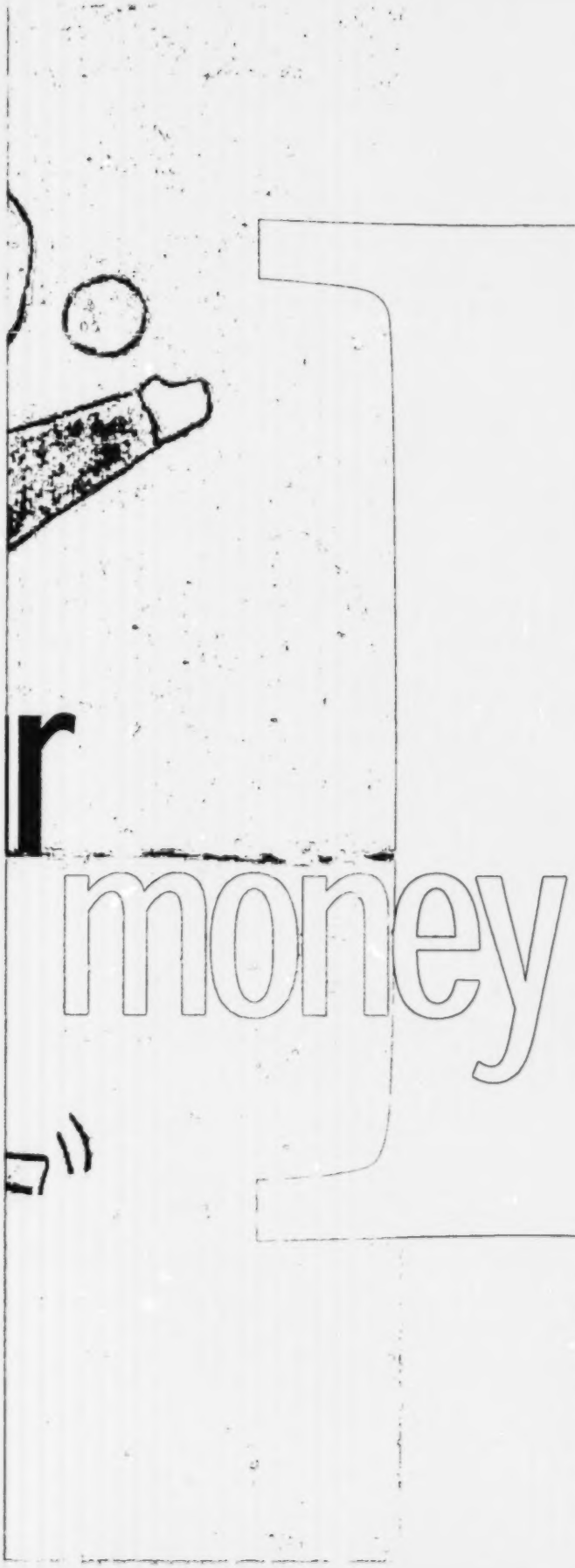

In 1981, anyone with money to invest didn't have to think very hard about where to put it. Thirty-year U.S. Treasury bonds yielded upwards of 14 percent. And for those who preferred to stay short-term, the yield on 3-month Treasury bills topped 16 percent. Backed by the full faith and credit of the United States Government, both were as close to risk-free as an investment can be.

A certificate of deposit from the local bank was another attractive investment option. In May of 1981, the average return on a 3-month CD had brushed past 19 percent, and as long as you stayed below the $100,000 FDIC insurance limit, the risk to your principal was virtually nonexistent.

What a difference 20 years make!

By the end of 2001, the Treasury was no longer offering 30-year bonds, the average rate on 3-month CDs had slipped below 2 percent, and Americans were handling their money far differently than they had in 1981 — or even 1991, for that matter.

The action moved to Wall Street during the 1990s as investors showed a decided preference for equities (stocks and stock mutual funds) over income instruments (CDs, bonds, and money market mutual funds). Two sets of numbers offer an indication as to how popular stocks had become:

- In 1990, the total volume of shares traded on the New York Stock Exchange was just shy of 40 billion. In 2000, total trading volume topped 265 trillion.
- By the end of 1998, almost half of all American families held stock — either through direct investment in the shares of a particular corporation or through investment in a mutual fund. Just six years earlier, in 1992, the figure had stood at less than 37 percent.

What was responsible for the Wall Street resurgence? The short answer is "low inflation and low interest rates." Two economics truisms offer guidance:

(1) Inflation distorts economic and financial decision-making.

(2) High interest rates tend to inhibit economic growth; low interest rates tend to foster it.

During the late 1970s and early 1980s, the psychology of inflation had worked its way into the head of nearly every American investor. The CPI had jumped 13.3 percent in

1979, followed by a 12.5 percent increase in 1980, and double-digit inflation was starting to seem like the norm. Investors expected it and factored it into their financial decisions. If inflation was going to take a 12 percent annual bite out their wealth, they'd be looking for at least a 14 or 15 percent return on their investments.

But nothing lasts forever — not double-digit inflation and not double-digit returns on investment. During the mid-'80s and early '90s, effective monetary policy and a commitment to fiscal restraint combined to foster the steady, sustainable economic growth that would draw investors back to the stock market.

There were reversals: The Crash of 1987, when the Dow dropped more than 500 points in a single day, and the recession of 1990-91. Both left scars, but neither was enough to frighten investors away from Wall Street for very long.

As investors saw it, the risk of playing the market was outweighed by the fact that the return on CDs, Treasury securities, and money market mutual funds had fallen sharply. During the decade of the '90s, the average annual yield on Treasury bills was 5.01 percent in nominal terms, or 1.93 percent in real terms. In contrast, the average annual yield on stocks was 18.17 percent in nominal terms, or 15.19 percent in real terms. (See the box, "When is 15 percent not really 15 percent?" for an explanation of *nominal* versus *real* rates of return.)

Sure, stocks might be risky, but so was leaving your money in an investment that offered a negligible return.

The mechanics of investing had also changed. Investors took a more direct role in handling their own transactions. When the 1990s began, almost everyone who bought stock went through a full-service broker. But as the decade progressed, investors were more inclined to do their own research and place their own trades through discount brokerages.

The Internet became a significant factor as well. By mid-2001, nearly 8.8 percent of the 143 million Americans on the Internet were trading stocks, bonds, and mutual funds online.

And investors' desire to diversify led to explosive growth in the number of stock mutual funds. Equity funds — those that invest only in stocks — numbered 1,100 at the end of 1990, but by the end of 1999, there were 3,952.

The more things change . . .

During the 1990s, the "new economy" became a hot topic. Is there such a thing? Maybe it's too soon to tell, but one thing is certain: "New" or "old," the economy is still subject to some of the same old ups and downs. The Nasdaq is proof of that.

Between December 31, 1990, and December 31, 1999, the Nasdaq Composite Index soared from 373.8 to 4,069.3. Many of its top performers — Sun, Cisco, Microsoft, Dell, Intel, Oracle — epitomized the phrase "new economy." By 1999, the Nasdaq, which hadn't even existed prior to 1971, had become the largest U.S. stock market by dollar volume.

Then the magic seemed to end. From a high of more than 5000 in the spring of 2000, the Nasdaq composite began to plummet — victim of an overall economic downturn that had a particularly severe impact on the high-tech sector. In the aftermath of the tragedy on September 11, 2001, it plunged below 1400 before struggling back into the 1700 to 1900 range in early 2002.

"Old economy" blue chip stocks had their share of trouble, too. But overall the Dow Industrials didn't suffer as much damage as the Nasdaq. After flirting with the 12,000 mark in early 2000, the Dow retreated to nearly 8000 after 9/11 and then managed to make its way back above 10,000 in February 2002.

One more thing while we're on the subject. Ever wonder why TV news cameras always show wild cheering or deep despair on the floor of the New York Stock Exchange, but we never see similar scenes from the Nasdaq trading floor? The answer is less complicated than you might think: There is no Nasdaq trading floor. All Nasdaq trades are handled electronically through a computer and telecommunications network.

When is 15 percent not really 15 percent?

Back in the early 1980s, double-digit returns on T-bills and bank CDs sounded spectacular. Fifteen percent with little or no risk! It doesn't get any better than that, right?

Well, not exactly.

Let's look at the real rate of return — the nominal rate minus the rate of inflation. If a Treasury bill yields 16 percent, but inflation is running at 13.3 percent a year, then the real rate of return is 2.7 percent. That's enough to keep you ahead of inflation, but no one would call it spectacular.

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Money in the Bank

The '80s and '90s left their mark on banking, too. Between 1980 and 2000, a wave of consolidations reduced the number of U.S. commercial banks from 14,434 to 8,318. (Yet it still might have seemed as if there were more banks than ever because the number of commercial bank branches actually increased from 38,738 to 64,680.)

The total number of thrift institutions — savings & loan associations, savings banks, and cooperative banks — declined sharply. In 1985, thrifts and their branches numbered 24,707, but by the year 2000, consolidation and the S&L scandal of the 1980s had cut the total to 14,497.

Changes in government regulations had a major impact on the products banks were allowed to offer. During the mid-1990s, banks got the green light to sell mutual funds (but they had to make it plain that the mutual fund investments were not insured by the FDIC). Then, in 1999, Congress passed the Gramm-Leach-Bliley Financial Services Modernization Act, which effectively repealed most of the Depression-era Glass-Steagall restrictions that had prohibited banks from offering investment and insurance products.

Want to Know More?

The FDIC web site has capsule descriptions of significant federal banking legislation, starting with the National Bank Act of 1864 and ending with the Gramm-Leach-Bliley Act of 1999. **http://www.fdic.gov/regulations/laws/important/index.html**

The PBS web site features an informative and entertaining look at electric money, and it includes a teachers guide. **http://www.pbs.org/opb/electricmoney/**

"Dawn of a New Era . . . The U.S. Retail Payments System," was the featured article in the Federal Reserve Bank of Boston's

Paper or plastic?

Another form of plastic gained widespread acceptance during the 1990s. Stored-value cards accounted for $21 billion worth of transactions in 1999, and that figure is projected to reach $57 billion in 2005. Perhaps the type of stored value that's most familiar to American teens — at least among those who don't carry their own cell phones — is the prepaid phone card. But during the late 1990s, stored-value cards were used increasingly at the gas pump and in place of paper gift certificates.

Let's not forget that old reliable standby — cash. Despite recurring predictions of a "cashless society," cash is still very much with us. In fact, there was a lot more of it in circulation in 2000 ($530 billion) than there was in 1980 ($115 billion). But even cash has changed. In the mid-1990s, the U.S. Treasury introduced redesigned currency for the high-tech era. The new design features were a response to the fact that counterfeiters — like the rest of us — had greater access to color photocopiers and computer scanners.

Technology had a major impact on banking during the '80s and '90s.

• As of mid-2001, 17.9 percent of all Internet users were banking online.

• The number of automated teller machines mushroomed.

	1980	1999
	18,500	227,000

• Point-of-sale terminals experienced dramatic growth during the 1990s.

	1990	1999
	53,000	2,350,000

• And there was a corresponding increase in debit card use.

	1990	1999
Number of debit cards	164,000,000	228,000,000
Number of transactions	274,000,000	7,517,000,000
Dollar volume of transactions	$12 billion	$322 billion

What about credit cards?

• Credit cards remained popular.

American families with at least one general purpose credit card:

1989	1998
56.0%	67.5%

Median credit card balance (the amount you owe):

1989	1998
$1,300	$1,900

• Debit cards didn't replace credit cards.

Percent of all consumer payments transactions:

	1990	1999
Credit cards	14.8	27.9
Debit cards	14.5	22.5

Changes in the Dow

The economy changes and so does the list of 30 Dow Jones Industrials. Here's a comparison of component stocks of the Dow Jones Industrial Average (DJIA) at the start of 1980 and the end of 1999.

DJIA Component Stocks, January 1980

Allied Chemical*
Alcoa
American Can
American Tobacco
AT&T
Bethlehem Steel
Dupont
Eastman Kodak
Exxon
General Electric
General Foods
General Motors
Goodyear
IBM
International Harvester
International Nickel
International Paper
Johns Manville
Merck
Minnesota Mining & Manufacturing
Owens-Illinois Glass
Procter & Gamble
Sears Roebuck & Company
Standard Oil of California
Texas Corporation
Union Carbide
United Technologies
U.S. Steel
Westinghouse Electric
Woolworth

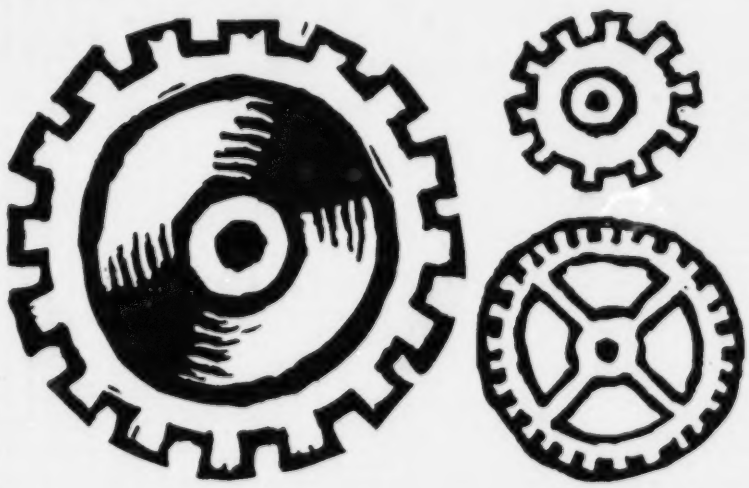
DJIA Component Stocks, December 1999

Alcoa
American Express
AT&T
Boeing
Caterpillar
Citigroup
Coca Cola
Disney
Dupont
Eastman Kodak
Exxon
General Electric
General Motors
Hewlett Packard
Home Depot
Honeywell*
IBM
Intel
International Paper
Johnson & Johnson
McDonald's
Merck
Microsoft
Minnesota Mining & Manufacturing
J.P. Morgan
Philip Morris
Procter & Gamble
SBC Communications
United Technologies
Wal-Mart

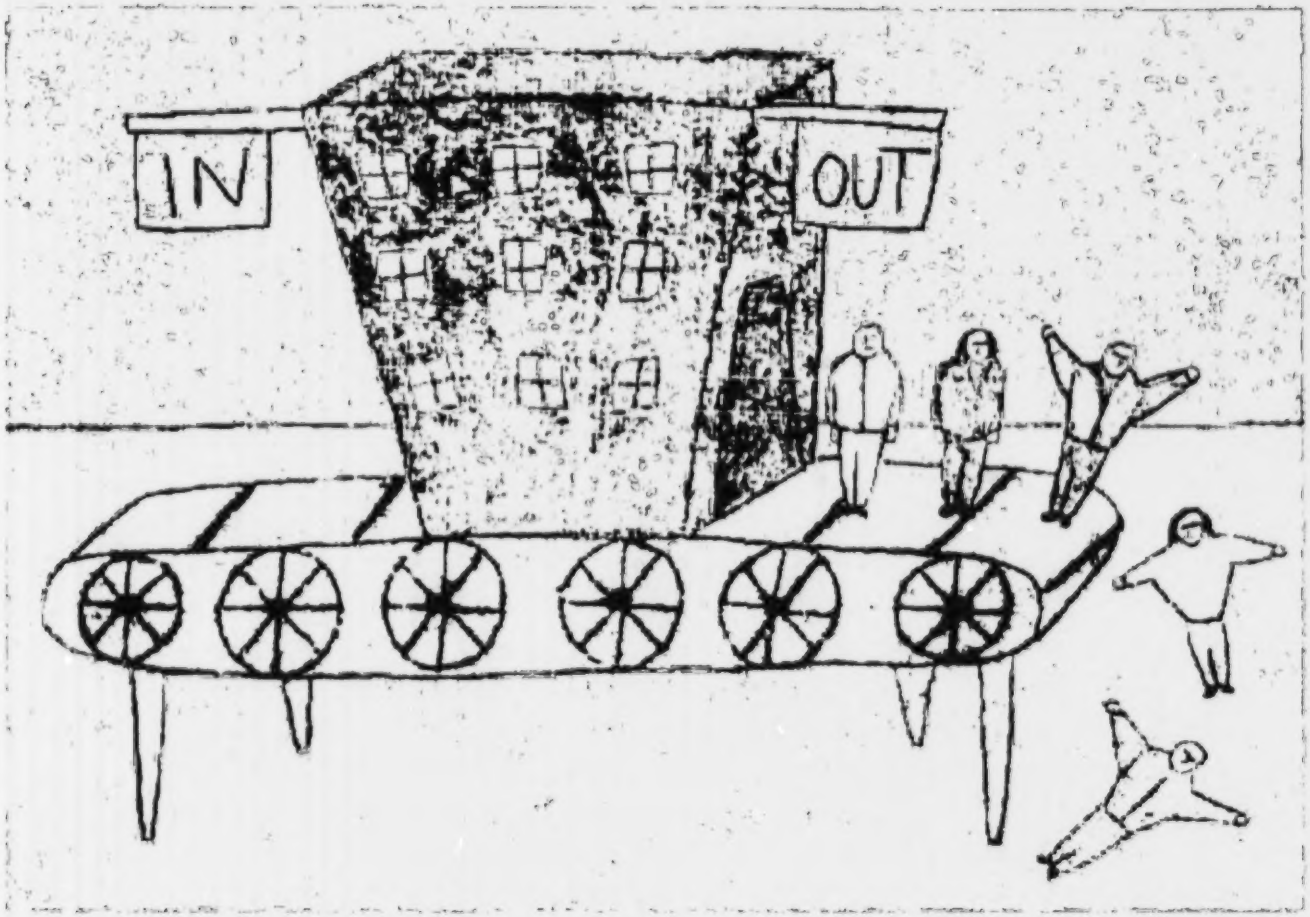
*Allied Chemical merged with the Signal Companies in 1985, and AlliedSignal subsequently merged with Honeywell in late 1999.
(**Bold** = new to DJIA since 1980)

And just for fun, here's a list of the DJIA components at the end of 1899:

American Cotton Oil
American Steel & Wire
American Sugar
Continental Tobacco
Federal Steel
General Electric
National Lead
Pacific Mail Steamship
People's Gas
Tennessee Coal & Iron
U.S. Leather (preferred)
U.S. Rubber



What's interesting is that the 1980 component corporations are more like those of 1899 than those of 1999 – another indication of how much things changed during the last two decades of the 20th century.



2000 Annual Report. **http://www.bos.frb.org/genpubs/ar/ar2000/index.htm**

What did people mean when they talked about "the new economy"? The answers are in "New Paradigm" in the Federal Reserve Bank of Dallas's *1999 Annual Report*. **http://www.dallasfed.org/htm/pubs/annual.html**

We didn't get to talk about the European Monetary Union, which was one of the big changes to take place during the last two decades of the 20th century. But the Federal Reserve Bank of Dallas web site features a comprehensive and very readable article on the topic. **http://www.dallasfed.org/htm/research/hot/bd0202.html**

"Do . . . you . . . take . . . travelers . . . checks?"

There was a time, not so long ago, when prudent travelers wouldn't dream of leaving home without travelers checks. But during the 1990s, the dollar volume of travelers check transactions declined sharply — from $22 billion in 1990 to $14 billion in 1999. Debit cards, credit cards, and network technology are the cause.

Need cash for a canal boat ride in Amsterdam? No problem. An ATM networked to a computer in the States can dispense a fistful of euros in a matter of seconds, and you're guaranteed the best available exchange rate. Shopping? Dining? Club hopping? Checking out of your hotel? Your credit card or debit card will almost always do the trick. And when you get home, you'll get a detailed statement that lists all your transactions. The downside? There really isn't any, unless you miss dealing with imperious bank clerks as you spend half your morning looking for the best exchange rate in a country where you don't speak the language.

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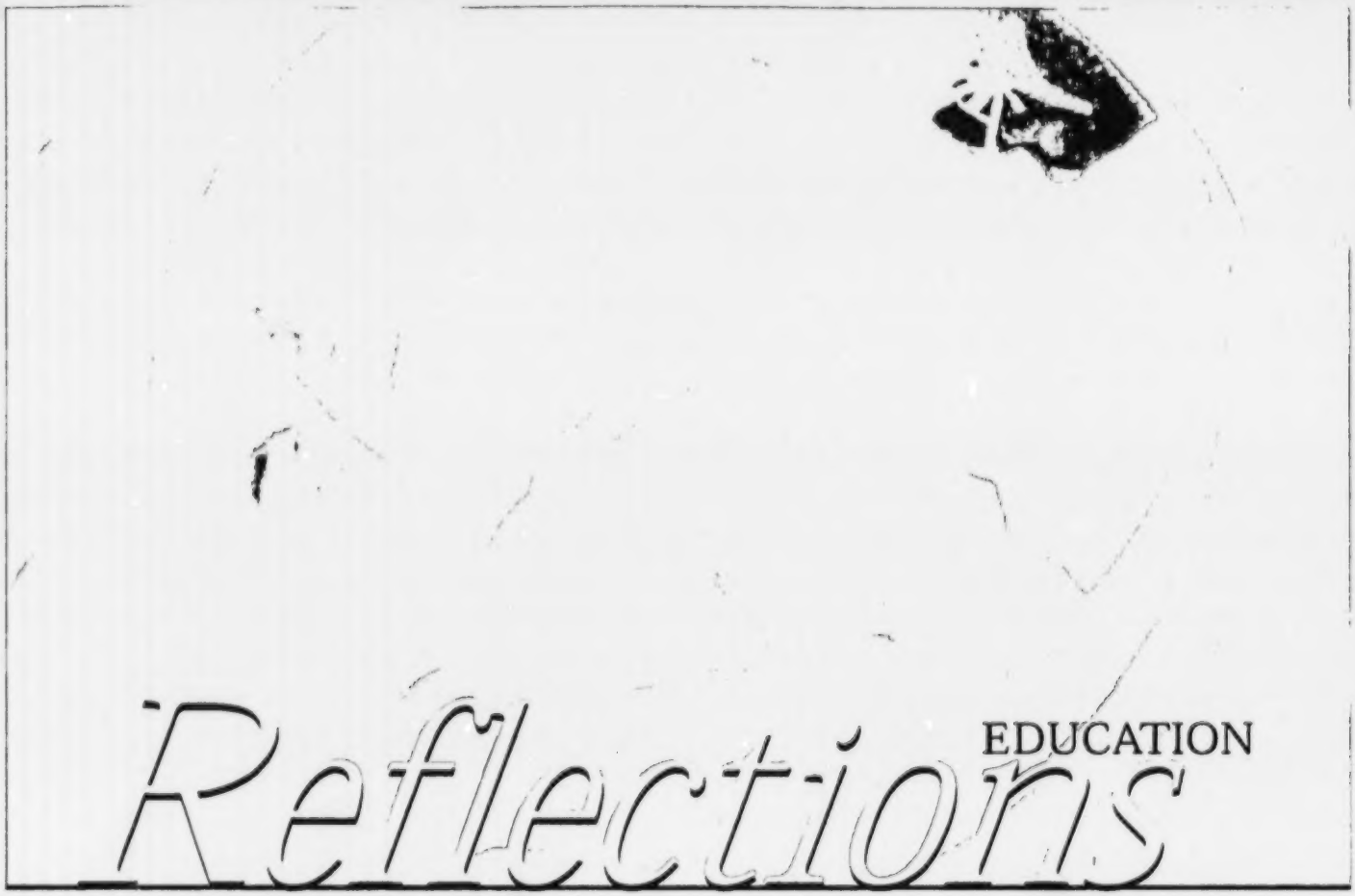

Reflections on the Way Life Used to Be

EDUCATION

by Scott Guild
Director of Economic Education
Federal Reserve Bank of Boston

Looking back on my teaching experience in the early 1980s, I remember having a number of tools at my disposal, some of which were even considered "cutting edge" for the time. There were filmstrip projectors and 16-mm films with projector, reel and all. VCRs existed; we all tried to figure out how to keep the 12:00 from blinking, thereby exposing our technological ineptitude. Videodiscs were a craze in the late 1980s; this technology sought to provide teachers and students with a plethora of snippets for presentations and projects.

A favorite tool of mine was the overhead projector that allowed you to write on acetate with a wax pencil and have your writing projected onto a screen behind you. The pedagogical benefit of this technological development was to allow the teacher to view the students while writing information on the projected acetate. Being able to write while facing the class rather than having to write on a blackboard with your back to the class was truly an improvement. Joel Mokyr, an economist at Northwestern University and the author of *The Lever of Riches*, would identify such a technological change as a micro innovation that applies an existing technology to a particular problem and improves the process. In this case, the application of the overhead projector to classroom instruction provided a more engaging teaching experience for both the teacher and the student.

During the 1980s, research on left-brain and right-brain dominance and its implications for teaching and learning were infiltrating teacher workshops and professional development curricula. In 1983, Howard Gardner's research on multiple intelligences was introduced to the public through publication of the treatise, *Frames of Mind*. In fact, the 1980s saw a proliferation of books on the topic of education and education reform.

The growing interest in the plight of American schools and American education was propelled in large part by publication of *A Nation at Risk*, a seminal report that defined the scope of the American "problem" and served as a catalyst for education

reform. *A Nation at Risk* compared current student educational attainment and mastery to past achievement levels and assessed current achievements in light of emerging needs. In 1991, the Secretary of Labor's Commission on Achieving Necessary Skills published a report that codified the skills and competencies students would need in order to be effective in the economy of the 21st century. The *SCANS Report* was followed in 1995 by the *Third International Measurement of Math and Science Study (TIMSS)*. *TIMSS* compared American student competence in math and science with results for students in other nations.

In response to these somewhat dire reports and non-complimentary comparisons, there was a clamor for education reform. Several movements emerged out of the recognition that American education was indeed in crisis. I will address two of these movements here: accountability and constructivism.

Inputs, Outputs, and Throughputs

In the 1980s, the emphasis began to change, first in conversations and then in legislation, from how much money and resources were being allocated to education, or *inputs*, to what were the demonstrable results of student achievement, or *outputs*. When talking about "effective" education, one could no longer talk only about budget allotments and full-time equivalents (FTEs); one had also to talk about student achievement, competency, and mastery. The management term "accountability" began being used as a criterion in judging educational goals and objectives, and a proliferation of state-level standardized testing soon followed.

If the mission of public education is to provide a free and serviceable education to all who enroll, how do you demonstrate that the education provided is serviceable? For the past 15 years, in the interests of accountability, state departments of education, education think tanks, college professors, and school-level administrators and teachers have been hammering out what constitutes a "proper" curriculum framework and a "fair" test for all.

Ideally, a "fair" test allows students to demonstrate competence and mastery of the agreed-upon "proper" curriculum and covers the content necessary for pursuing a post-secondary education and/or entry into the information-age economy. Through fits and starts, education research has developed various possible curriculum frameworks and tests that educators can compare and evaluate in order to begin identifying "best practices." The value of these approaches is increasingly being recognized — outputs, it would seem, are here to stay.

A Field Experience

At the same time that the public was inundated with disheartening data and reports that seemed to impugn the entire education field, individuals, organizations, universities, and communities were beginning to visualize, develop, and implement changes in teaching processes.

I had the opportunity a few months ago to observe a middle school class performing a science experiment, taking water samples at a local aquifer in Maine. They used GPS and camera peripherals to identify their location. They used keyboards and styli to capture their observations. They used a probe to record their sample. Each student had his or her own handheld device to power the peripherals and capture all the data. They shared the peripherals since there was one for approximately every four students. After the students had collected their individual data, they came together to share their observations with one another. Back in the classroom, the individual data were recorded and aggregated for further analysis. Notably, the teacher and students were not merely talking about science; they were actually doing it.

This type of "constructivist," problem-based learning experience is a relatively new *throughput* in the educational process. The focus of instruction is centered on the students and their ability to make meaning out of their experiences. Active participation on the part of the students and trained teachers comfortable in this form of educational pedagogy and style of instruction are crucial to its success. This convergence of teaching and learning has been made possible both by the power of technology and by a broadening of the educator's thinking about "effective" education. It provides an inkling of hope that we may, in fact, be able to "leave no child behind." It may enable us to move away from an education system based on social sorting to one that provides equal access. As a relatively new approach to throughputs, constructivist, problem-based learning has great potential.

A Moving Target

Clearly, the criteria for making judgements about an "effective" education have changed over time. No longer are we talking about a bell curve of success in which a certain percentage of students fail, a certain percentage are average, and a certain percentage excel. Today, there shall be "no child left behind," says the subtitle of the newly passed Elementary and Secondary Education Act.

We are also no longer looking only at local or even national comparisons; the scope is now global. And we are dealing with new demographics since the 1980s. Hispanics are now the largest minority in the United States, for example, and the percentage of foreign-born citizens is up markedly since the 1980s. Together, these factors compound the charge of providing an

effective education and create a major challenge to the country to revisit, refocus, revamp, and reenergize its approach to education.

A Moving Experience

I find it somewhat unnerving that the young middle schoolers I mentioned earlier had in the palms of their hands a device that was hundreds of times more powerful than the Apple GS desktop computer I was using when I left the classroom in 1993. As I watched them nimbly connect, use, and direct the handheld and its various peripherals, it struck me that this generation has truly "grown up digital," as author and consultant Don Tapscott claims. In 1993, if I wanted to show clips of a film or reshow a film segment in order to discuss it further, the technology was often too unwieldy or was simply not available to me. Today, students can record, edit, revise, calculate, graph, and present on one machine. They demonstrate little fear of technology and are generally more familiar with various technological devices than their teachers. Clearly, one hurdle to overcome in achieving widespread use of constructivist learning is the ability of teachers to understand and comfortably use new technology themselves.

In 2002, after approximately 20 years of education reform, we have only begun developing the tools that will let us reach the objectives set out in *A Nation at Risk*, the *SCANS Report*, and *TIMSS*. But from a research point of view, progress has been made. The increased application of directed research into the education field has enabled educators to better assess levels of student competence in English and math. We are identifying a baseline that can be used to evaluate when and where true progress is occurring. And the effective infusion of active learning technology into the learning process could turn out to be the type of throughput that will produce the wanted outputs and further justify the inputs.

Answers to Exercise One

New Products of the 1980s...Where Would We Be Without Them?

1980: 3M's Post-it Notes, cordless telephone, Rollerblades
1981: IBM personal computer, NutraSweet, Microsoft MS-DOS
1982: Diet Coke, *USA Today*
1983: Trivial Pursuit board game, music CDs, Lotus 1-2-3 software, cellular phone network, computer mouse
1984: Desktop laser printer, Chrysler minivan, Apple Macintosh computer, CD-ROM
1985: Microsoft Windows software, Pagemaker software, Nintendo entertainment system
1986: Microwave pizza, nicotine chewing gum, digital audiotape
1987: Disposable camera, Prozac, soybean milk, Macintosh II computer
1988: Disposable contact lenses, Rogaine hair restorative, Doppler radar
1989: [Nothing listed]

Source: *Pride and Prosperity: The 80s*, Time-Life Books, 1999.

Answers to Exercise Three

Public Picks to Commemorate the '80s and '90s

In the next column are the American public's choices for postage stamps to commemorate the 1980s and 1990s in the USPS Celebrate the Century series.

The 1980s
The space shuttle program
The Broadway musical *Cats*
The San Francisco 49ers
U.S. hostages come home from Iran
Figure skating
Cable TV
Vietnam Veterans Memorial
Compact discs
Cabbage Patch Kids
The Cosby Show
Fall of the Berlin Wall
Video games
E.T. The Extra-Terrestrial
Personal computers
Hip-hop culture

The 1990s
Seinfeld
The Gulf War
New records in baseball
Computer art and graphics
Improving education
Extreme sports
Jurassic Park
Virtual reality
Special Olympics
John Glenn returns to space
Recovering species – peregrine falcon
Cellular telephones
The World Wide Web
Sport utility vehicles
The blockbuster film *Titanic*

Web Update
The correct URL for Connecticut History Online is http://www.cthistoryonline.org. (The URL listed in our last issue was that of the beta testing site.) Be sure to check out the "Journeys" section, which features photo essays on Connecticut women at work, the textile industry in Connecticut, the Connecticut maritime trades, Connecticut goes to the beach, and much more.

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